This is a digital copy of a book that was preserved for generations on library shelves before it was carefully scanned by Google as part of a project to make the world's books discoverable online.

It has survived long enough for the copyright to expire and the book to enter the public domain. A public domain book is one that was never subject to copyright or whose legal copyright term has expired. Whether a book is in the public domain may vary country to country. Public domain books are our gateways to the past, representing a wealth of history, culture and knowledge that's often difficult to discover.

Marks, notations and other marginalia present in the original volume will appear in this file - a reminder of this book's long journey from the publisher to a library and finally to you.

Usage guidelines

Google is proud to partner with libraries to digitize public domain materials and make them widely accessible. Public domain books belong to the public and we are merely their custodians. Nevertheless, this work is expensive, so in order to keep providing this resource, we have taken steps to prevent abuse by commercial parties, including placing technical restrictions on automated querying.

We also ask that you:

+ *Make non-commercial use of the files* We designed Google Book Search for use by individuals, and we request that you use these files for personal, non-commercial purposes.

+ *Refrain from automated querying* Do not send automated queries of any sort to Google's system: If you are conducting research on machine translation, optical character recognition or other areas where access to a large amount of text is helpful, please contact us. We encourage the use of public domain materials for these purposes and may be able to help.

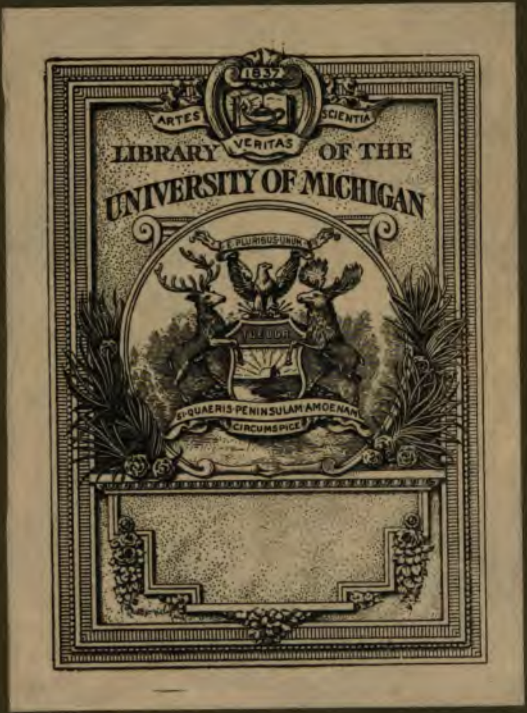
+ *Maintain attribution* The Google "watermark" you see on each file is essential for informing people about this project and helping them find additional materials through Google Book Search. Please do not remove it.

+ *Keep it legal* Whatever your use, remember that you are responsible for ensuring that what you are doing is legal. Do not assume that just because we believe a book is in the public domain for users in the United States, that the work is also in the public domain for users in other countries. Whether a book is still in copyright varies from country to country, and we can't offer guidance on whether any specific use of any specific book is allowed. Please do not assume that a book's appearance in Google Book Search means it can be used in any manner anywhere in the world. Copyright infringement liability can be quite severe.

About Google Book Search

Google's mission is to organize the world's information and to make it universally accessible and useful. Google Book Search helps readers discover the world's books while helping authors and publishers reach new audiences. You can search through the full text of this book on the web at `http://books.google.com/`

A 3 9015 00379 896 7
University of Michigan – BUHR



LIBRARY OF THE
UNIVERSITY OF MICHIGAN

H610.5
B86
J86

1475-8

THE

BRITISH JOURNAL

OF

HOMŒOPATHY.

University of MICHIGAN

EDITED BY

J. J. DRYSDALE, M.D., AND R. E. DUDGEON, M.D.

VOL. XX.

SIMILIA SIMILIBUS CURANTUR.

IN CERTIS UNITAS, IN DUBIIS LIBERTAS, IN OMNIBUS CHARITAS.

LONDON:
H. TURNER & CO., 77, FLEET STREET, E.C.;
AND 106, NEW BOND STREET, W.
GROOMBRIDGE & SONS, 5, PATERNOSTER ROW.
EDINBURGH: J. C. POTTAGE, 99, PRINCESS STREET;
NEW YORK: W. RADDE, 300, BROADWAY.

MDCCCLXII.

PRINTED BY W. DAVY AND SON, GILBERT STREET, OXFORD STREET.

CONTENTS OF No. LXXIX.

HYDRASTIS CANADENSIS IN CANCER, BY DR. BAYES......................
THE THERAPEUTICS OF PHTHISIS PULMONALIS, BY MR. POPE .....
EXPERIMENTAL RESEARCHES ON DROSERA, BY DR. E. CURIE .....
ON CHELIDONIUM MAJUS IN FACIAL NEURALGIA, BY DR. FIRMA
ON FIBROUS TUMOURS OF THE UTERUS, BY DR. KIDD......................
ON THE PATHOGENESY OF ACONITE, BY MR. NANKIVELL...............
CASES OF POISONING BY BELLADONNA, WITH COMMENTARIES DR. R. HUGHES ....

REVIEWS.

ANSWERS TO SIR B. BRODIE, BY DRS. DRUBY, MARSTON AND SH AND MESSRS. MOORE AND SMITH ....
DR. INMAN'S FOUNDATION FOR A NEW THEORY AND PRACTICE MEDICINE ....
DRS. PETERS' AND SNELLING'S SCIENCE AND ART OF MEDICINE.......
DR. BUSHNAN'S REMARKS ON THE NARROW LIMITS OF SO-CALL RATIONAL MEDICINE ....

MISCELLANEOUS.

Medical Annals of a Year, 131.—Hypermetropia, 140.—The Composition of the Sun Rademacher on Chelidonium majus, 153.—Wisdom in High Places, 158.—A Opponent, 161.—Dr. Cotton on Steel in Phthisis, 164.—Nitrate of Uranium in Di 166.—An Allopathic account of the Homœopathic Congress, 171.—Homœopathy in 172.—Effects of Upas, Tanghinia, Digitalis and Hellebore, 172.—Poisoning by Stryc 173.—Arsenic Inhalation in Bronchitis, 174.—The Prince Consort and his Treatmen
Obituary: Dr. Atkin, of Hull, 175.
Books Received, 176.

CONTENTS OF No. LXXX.

POISONING BY BELLADONNA, WITH COMMENTARIES, BY DR. HUGHES
EFFECTS OF ARSENICAL PAPER-HANGINGS ON THE HEALTH, BY DR. DUDGEON ....
PHARMACOLOGICAL STUDIES, BY DR. ROTH......................................
LARYNGEAL CATARRHS, BY DR. KLEINERT ....
INFINITESIMAL DOSES AND SPECTRAL ANALYSIS, BY DR. OZANAM 2
PELVIC CELLULITIS, BY DR. MACLIMONT 2

REVIEW.

DR. ROBERTS ON HOMŒOPATHY IN MANCHESTER 3

MISCELLANEOUS.

A Few Words about Shoes, 309.—Exasperating a Disease, 313.—The Letter of the Law, 314.—The Cure of Popliteal Aneurism by Flexion, 316.—A Good New Year, 318.—On th Origin of Organized Beings, 323.—Modern Spirit-Raising, 334.—Contagiousness Phthisis, 338.—A Rebuke to the Bigots, 343.—Therapeutics advanced Accidentally, 344.—Physiological Operation of Atropin, 346.—Aconite Antidoted by Nux vomica, 349.—Con parative Treatment of Diarrhœa, 351.—Effects of Snake Bites, 352.

Books Received, 352.

CONTENTS OF No. LXXXI.

PAGE
MR. NANKIVELL ON THE PATHOGENESY OF ACONITE ... 353
PROFESSOR HOPPE ON THE CAPILLARY VESSELS ... 369
MR. GELSTON ON THE ALTERNATION OF MEDICINES ... 392
DR. GERSON ON PROSOPALGIA ... 401
MEDICAL TERRORISM, BY DR. BAYES ... 420
DRS. MADDEN AND HUGHES ON HYDROCYANIC ACID ... 441
DR. GALLAVARDIN ON PHOSPHORIC PARALYSIS ... 460
DR. LIEDBECK ON BELLADONNA AS A UTERINE REMEDY ... 483

REVIEWS.

NEW AUSTRIAN HOMŒOPATHIC JOURNAL ... 490
RUECKERT'S HOMŒOPATHIC CLINICAL EXPERIENCE ... 491

MISCELLANEOUS.

Successful Inoculation of Syphilitic Blood, 498.—Chlorate of Potash in Phthisis, 500.—Case of Flatulent Asthma, 502.—Professor Czermak's Laryngoscope, 503.—Dr. Williams on Cod Liver Oil, 505.—Action of Phosphorus on the Liver, 506.—Poisoning by Lead, 507.—How these Allopaths love one another, 509.—Almost persuaded to be an Homœopathist, 510.—A New Hæmostatic, 511.—A Nut for the Medical Council to Crack, 511.—Dr. Williams on Simplicity in Therapeutics, 513.—New Homœopathic Periodical, 513.—Two ways of telling a Story, 513.—Iodine in Gastralgia, 515.—Fucus Vesiculosus in Obesity, 515.—On the Remedial Action of Compressed Air, 517.—On Veratrum Viride in Disease, 521.—Syphilization, 527.

Books Received, 528.

CONTENTS OF No. LXXXII.

DR. LUDLAM ON PHYSIOLOGICAL DIETETICS ... 529
DR. McGILCHRIST ON PSYCHOLOGICAL PHYSIOLOGY ... 547
DR. HIRSCH ON A CASE OF OVARIAN DROPSY ... 588
PROFESSOR HOPPE ON HOMŒOPATHY ... 606
DR. LIEDBECK ON EXTERNAL REMEDIES, &c. ... 616
DR. GODING ON THE LAW OF SIMILARS ... 622
SIX MONTHS OF BRITISH ALLOPATHY ... 635

REVIEWS.

MR. YELDHAM'S VENEREAL DISEASES ... 644
DR. BURKE RYAN'S INFANTICIDE ... 651

MISCELLANEOUS.

Report on Suspended Animation, 662.—Rennet Wine, 674.—The *Medical Circular* on Modern Therapeutics, 677.—Archbishop Whately on Medical Trades' Unions, 680.—Siguatera or Fish-Poison Disease, 681.—Angina Pectoris caused by Smoking, 685.—Petroleum, 687.—International Exhibition, 688.—Love's Labour Lost, 688.—The Missing Link, 690.—Human Remains of Remote Antiquity, 691.

OBITUARY.

Dr. B. J. Joslin, 691.—Dr. J. P. Tessier, 692.—Dr. F. R. Horner, 693.—Dr. C. Haubold, 694.

Books Received, 694.

THE
BRITISH JOURNAL
OF
HOMŒOPATHY.

HYDRASTIS CANADENSIS IN CANCER.

By Dr. Bayes, of Cambridge.

In the *British Journal of Homœopathy* for January, 18 I published a few remarks embodying my experience of effects of Hydrastis in cancer. I then stated that the succ of the remedy had been variable in my hands, but that it h been sufficient to lead me to form an opposite conclusion that expressed by Dr. Hastings in the April, 1860, number the *Journal,* in which he said, "in no single instance ha effected a cure, nor even appeared to check the disease."

I also stated that I had found the Hydrastis exercise marked influence in relieving the pain of cancer, while, at same time, it had improved the general health of the patie I further mentioned that very sudden prostration of stren had accompanied the continued use of the remedy beyon certain point.

Subsequent and extended experience confirms me in correctness of the views I then expressed as to the value of Hydrastis in cancer. Its *varied* success shows that this reme is not to be looked on as *the specific* for cancer; although i equally clear that, in certain cases, its use is strongly indicat and that it is a very valuable addition to our means of treati this most distressing class of disease.

Dr. Bradshaw, in his "*Few Remarks on Hydrastis*," in the October, 1861, number, has added to our knowledge of the action of this medicine, in the relation of *five* cases of cancerous disease. In case No. 1, the patient suffered from "unmistakeable carcinoma" of the left breast. He "gave her a pilule of Hydrastis 1, four times a day," with benefit to her general health, and he speaks of the remedy as "evidently exerting an absorbing counteracting influence over the scirrhous tumour."

In Case 2, the patient suffered from scirrhous tumour of the left breast, and was also treated by Hydrastis 1, a pilule four times a day, and afterwards with drop doses of the mother tincture, and subsequently globule doses (dilution not named), and "her disease seems stationary."

The third Case (numbered 5), was that of a woman with cancerous ulceration of the os and cervix uteri. Hydrastis was given every four hours (no dilution named), and a weak injection (no strength or mode of preparation named). There was some mitigation for a few weeks, but ultimately the patient died.

The fourth Case (numbered 6), was also one of cancerous ulceration of os and cervix uteri. The Hydrastis was used for two months, without benefit (the dose and means of local application are not mentioned).

The fifth case (numbered 7), was also one of cancerous disease of os and cervix uteri. Hydrastis has been given for six months (in what doses or manner, are not stated). "She lingers on, suffering less, and the disease seems arrested."

These cases of Dr. Bradshaw's appear to me fully to bear out my formerly expressed opinion. Three out of the five cases have derived benefit from the use of the Hydrastis, which appears to have done all that medicine could do for them. The other two cases were hopeless cases from the first; the disease had probably progressed too far to admit of arrest. Still, I confess it would have been more satisfactory had Dr. Bradshaw entered fully into the particulars of his treatment.

In Case No. 2, we have an interesting confirmation of my own experience as to the rapid prostration which often follows the administration of too large a dose of Hydrastis. *The medicine made the patient feel so wretchedly ill that she* *feared it would kill her;* "the heart was beating irregularly and tumultuously, and she looked nervous and ill." This train of symptoms I have met with in several cases where the mother tincture was given.

Judging from my own experience, I should say that Dr. Bradshaw administered the medicine in too frequent doses and in too low dilutions. The plan I have found most beneficial, has been to begin with the 30th dilution, giving three globules every night, for a fortnight; then a pilule of the 12th dilution twice a day, for another fortnight, followed by the 6th, the 3rd, and finally, half-drop doses of the mother tincture, in the same way, giving a fortnight to each dilution. Then I have gone up the scale again. I have also found Dr. Pattison's suggestion a good one, to avoid rubbing the tumour; but instead, to apply a lotion over the parts by means of moistened linen rags. I have also found another of his suggestions of great service, that of using a cold infusion of the Hydrastis as an application to ulcerated surfaces.

I have made the cold infusion of the strength of ʒ ii. of the powdered Hydrastis to half a pint of water. Allow it to stand four days, then strain and keep in a cool place.

I am indebted to Dr. Pattison for these suggestions, which I have found of great practical service. I repeat them for the acceptance of Dr. Bradshaw, or of other medical men who may incline to test the Hydrastis in cancer.

I would also suggest to Dr. Bradshaw that, when writing on a subject of scientific enquiry, it is better to confine one's observations to a calm discussion of the points on which a difference of opinion exists. There is something peculiarly ungraceful in the manner in which he alludes to Dr. Wilkinson's letter and to my own paper on Hydrastis (which appeared in the *British Journal* for January, 1861), as "*testimonials* on a par with those given to that wretched puff, Dr. De Jongh's Cod Liver Oil." The Hydrastis is no patent medicine, nor has any one, that I am aware of, any interest in its use, beyond that of bringing under notice a remedy which appears to exert a beneficent influence over a most painful disease. The short paper alluded to was reprinted from your pages by Dr. Pattison, *without any reference to me,* and without any acknowledgement whence he extracted it; and this had been made a subject of remark by me in a short paper which I sent to the August number of the *Homœopathic Review.* There was, therefore, no excuse whatever for Dr. Bradshaw's strange attack.

I will now proceed to relate, at more length, the further experience I have had of the action of Hydrastis in cases of cancer.

With respect to the cases mentioned in my first paper—

The case of cancer of the left breast, in a young unmarried woman, has entirely disappeared under the use of Hydrastis, prescribed in the manner indicated above. She first consulted me on March 19th, 1860. The tumour was as large as a small hen's egg; the nipple retracted and the skin puckered. She had been for two years under allopathic care, and was strongly advised to submit to an operation. The tumour soon ceased to be painful, and had totally disappeared on February 20th of the present year. I have seen her within the last few weeks, and she remains perfectly well.

The case of open cancer, of the left breast, I have not seen nor heard of since I wrote my first paper.

At our Dispensary we have had the following cases:—

CASE I.

Mrs. F., aged 41, married.—Inflamed and indurated breast. Admitted Feb. 10, 1860. Arnica 3, a pilule twice a day.

Feb. 17.—Inflammation has subsided; the induration proves to be scirrhus. Hydrast. Can. 3, gtt. iv.; Sacch. lact. gr. xx.; to be dissolved in half a pint of water. Take a table-spoonful twice a day.

24th.—No pain; no change. Mercur. iod. 6, a pilule twice a day.

March 2nd.—No pain; no change. Continue a pilule every night.

March 16th.—Continue medicine.

April 5th.—Continue medicine.

20th.—No change. Hydrastis Can. ϕ tinct. gtt. xii.; Aq. dist. ℥ ii. A teaspoonful every night.

May 4th.—Some improvement. Repeat medicine.

28th.—Some slight inflammation. Arnica 12, a pilule twice a day, for two days; then resume Hydrast. Can.

June 11th.—The tumour has rapidly disappeared; there is still some slight pain. Repeat Arnica; a pilule every morning; Conium 30, gl. iii.; Sacch. lact. gr. i.; Ft. pulv., mitte chart. iii. One every third night.

July 4th.—The breast remains quite well; some slight indigestion. Nux 6, a pilule p. r. n.

CASE II.

Mrs. A, aged 42, married. Admitted May 4th, 1860.—Ovarian tumour of the right side, with severe pain, especially in walking. She has had a cancer excised from right breast. Hydrast. Can. 30, gl. iii.; Sacch. lact. gr. i.; Ft. pulv., mitte ii. To be taken every third night. Acon. 1-A, gtt. viii.; Sacch. lact. gr. xxiv.; dissolve in half a pint of water. Take a table-spoonful twice a day.

11th.—The acuteness of the pain is greatly lessened; the pain now is most severe at night. Rhus tox. 3, gtt. vi.; Sacch. lact. gr. xx.; dissolve in half a pint of water. Take a table-spoonful twice a day.

21st.—Better. Repeat medicine.

26th.—Pain almost gone; tumour still remains, and is weighty. Hydrast. tinc. 3, gtt. xvi.; Aq. dist. ℥ iv. A tea-spoonful three times a day.

June 4th.—Still better. Continue Hydrastis.

13th.—Much the same; seems at a standstill. Iod. 3, gtt. vi.; Sacch. lact. gr. xx.; dissolve in half a pint of water. Take a table-spoonful twice a day.

26th.—Better. Repeat Pulv.; Mercur. sol. 6, a pilule every night.

July 4th.—Still better. Repeat Pulv.; Mercur. iod. 1, gr. ii. every third night.

July 9th.—Almost well. Repeat medicine. Discharged cured.

CASE III.

Mrs. L., aged 46.—Admitted July 2nd, 1860. Cancer of right breast, hard, nodulated, very painful at times; skin had a bluish appearance over the tumour; skin was puckered, and adherent over a portion of the surface the size of a shilling; tumour not adherent to the ribs.

Of this case I have lost the early notes, but on December 24th she was better; the tumour had decreased in size, and was scarcely ever painful. The Hydrastis had exerted a manifest influence in relieving the pain and reducing the tumour. Intercurrently, many medicines were required to meet indigestion and other constitutional ailments—Arsenicum, Conium, Spongia, China, Nux, &c., with recurrence to Hydrastis 3, 6, 12, and occasionally the mother tincture. She still visits the Dispensary, but is so much better, that it is with difficulty that we can keep sight of her. The tumour has greatly decreased, but has still a bluish appearance, and is yet adherent to the skin.

CASE IV.

Mrs. R., widow, aged 77.—Admitted August 24, 1860, under Mr. Freeman. Cancer of right breast. The tumour is unattached to either skin or ribs. There is a small hard movable tumour, also, just above the clavicle. She has occasionally severe pains. This patient has continued the use of the Hydrastis, internally and externally, to the present date (October, 1861). The tumours have not increased, and are less painful, and the patient is in excellent health. The Hydrastis has been given from 30th dil. to the Mother Tincture; and a lotion of Tinct. Hydrast. Φ gtt. x.; Aq. dist. ℥ xvi., has been applied twice a day.

CASE V.

Mrs. B., aged 25, was admitted September 12th, 1860. The cervical glands of the left side of the neck are enlarged, apparently three, and have a stony, hard feeling. A tumour of similar character was excised at the Allopathic Hospital, some years since, and a deep scar remains. Some months after the operation, these glands enlarged, and are now very painful. Calc. carb. 30, gl. iii.; Sacch. lact. gr. i., every third night; Calc. carb. 6, a pilule on every night on which no powder was taken.

Oct. 3rd.—Better. Calc. carb. 12, a pilule every second night.

24th.—The hardness remains; there is occasional shooting pain. Hydrastis Can. 3, a pilule every night.

Nov. 5th.—Much better; the swelling decidedly less. Continue medicine.

23rd.—Better; suffers from indigestion. Repeat pil. Hydrast.; Nux. vom. 6, a pilule twice a day.

Dec. 7th.—Greatly better. Repeat pil. Hydrast.

26th.—Remains better; no pain. Repeat pilule.

Feb. 13th.—Still better, and feels so well, that as she lives 16 miles from Cambridge, she has asked to be allowed to stay away, unless there is any return of pain or increase of tumour. Tinct. Hydrast. Φ ʒ ii.; two drops in a little water twice a day when in pain.

CASE VI.

Mrs. D., aged 55.—Admitted December 10, 1860. Tumour on the dorsum of the foot; occasionally painful; has had it two years; it is stony hard, the size of a walnut, and nodulated. Had been recommended at the Hospital to have it excised. Ordered Hydrast. Can. 3, a pilule twice a day; Tinct. Hydrast. Can. Φ ʒ i.; Aq. dist. ℥ ijs. to be rubbed in every night. These means were continued till May 6th, when the tumour was almost removed, not being larger than a pea. She has not returned since.

CASE VII.

Mrs. A., aged 45.—Admitted December 10, 1860, under Mr. Freeman. Scirrhus of the breast. Hydrastis lotion ordered, and Arsen. 6; a pilule twice a day. This patient was suffering also from phthisis, and Bryonia, Phosphorus and other medicinces were prescribed. The Hydrastis lotion always removes the pain in the scirrhous breast. This patient is still under treatment.

CASE VIII.

Mrs. G., aged 50.—Admitted April 28th, 1860, as a home patient, under Mr. Theobald, who was at that time Surgeon to the Dispensary. This patient was too ill to leave her house, and was for some time confined to what she and her friends believed to be her death-bed, with a large open cancer of the left breast. Under the use of Hydrastis she continued to improve, till, on March 5th, 1860, she was so far recovered as to be able to go out daily and to do her house work. She still remains under treatment, and Mr. Freeman, our present surgeon, under whose care she is, tells me that the cancerous ulceration has considerably diminished; that it secretes a far healthier pus, and that her general health has greatly improved. In her case, Hydrastis has been discontinued at times, from its producing the depressing effect on the heart's action alluded to before.

CASE IX.

Mrs. J., aged 37.—Admitted July 21st, 1860, under Mr. Freeman, who has kindly furnished me with his notes of the case. "Mrs. J., laundress help; health good. Has stony hard tumour in left breast, unattached to skin; perfectly moveable, the size of a large filbert, surface somewhat nodulated; suffers from lancinating pains. Had first Hydrastis 12, a pilule twice a day; afterwards Hydrast. tinct. Φ a third of a drop three times a day; she had, intercurrently, a few doses of Nux vom. for dyspeptic symptoms. The tumour became painless, and gradually lessened till a portion, like a vein filled with coagulum, the size of a crow quill, and a third of an inch long, remained. I wished her to continue the treatment, but she thought herself well, and remained away. I saw her in May, 1861, and she then was quite well, neither pain nor induration remaining."

The following cases have occurred in my private practice:—

CASE X.

Mrs. S., aged 48, a lady of fair complexion and fair hair, consulted me on December 7th, 1860, for cancer of right breast. The tumour was stony hard, firmly adherent to the subjacent tissues and to the skin; the nipple was retracted, and a little yellowish watery fluid occasionally exuded. This patient was treated with the Hydrastis, commencing with the 30th, and running down to the mother tincture. On one occasion, by mistake, she took five drop doses of the mother tincture, and these produced extreme prostration, with palpitation, &c. The disease remained stationary for some months, then slowly progressed. I saw her last in May, 1861. The Hydrastis had a marked influence in relieving her pain; indeed, she scarcely suffered at all from it while taking Hydrastis, and the tumour had scarcely increased, though the whole of the mamma became absorbed. I regret to say that the patient was afterwards seized with pleurodynia and neuralgia of the whole side, for which she consulted her local surgeon, and after a month's blistering, &c., died.

CASE XI.

Miss G., aged 38, consulted me on February 26th, 1861. She had two extremely hard knotty tumours in the right breast, about the size of eggs, and one in the left, rather smaller; they gave a feeling of metallic hardness to the touch; the axillary glands, on both sides, were also enlarged and painful, and hard strings appeared to lead from each breast to the glands in the axillæ. This patient had been for some long time under allopathic care. She suffered great pain at times, and her general health was much broken down; she was highly nervous, her tongue loaded, her whole health disordered, and she looked dark, and almost dusky. Ordered Hydrastis, in increasing doses, and Hydrastis lotion.

I saw her again in March, when her general health was greatly improved; the pains had almost entirely subsided, and the tumours were less.

In April there was a still further improvement.

On May 4th she came, considering herself quite well, but the tumours in the right breast are still the size of a walnut, and that in the left breast is but little diminished; the mammæ have enlarged, and she is very much stouter. She is still under treatment, and improving steadily.

CASE XII.

Mrs. H., aged 48, is the mother of several children. I had attended her for some months, for constitutional ailments, before she drew my attention to a fixed, burning pain in the left inguinal region, accompanied with shooting, darting pains up the vagina, from which she has, at times, suffered during the past five or six years. On examination, I found the os uteri greatly enlarged, and presenting a stony, hard sensation to the touch; it felt like a hard, stony ring. I gave Hydrastis 6, and subsequently 12, and used an injection, made with ʒ ii. of the mother tincture to ℥ viii. of water. The lotion gave great pain, and was discontinued. The Hydrastis produced no effect. Arsen. iod. 3, was substituted, with a very rapid change for the better in all the symptoms; and when I examined the parts in about ten weeks after my first examination, I was struck by the very great improvement in the condition of the os uteri; it was softer, and had regained its natural shape, though still greatly enlarged. This patient is improving; but I am about to try the cold infusion of Hydrastis, as an injection, as she still suffers much pain.

Case XIII.

Miss W., aged 56.—In July, 1860, I was sent for to see this lady, who resided about thirty miles from Cambridge. She had been ill for many years, had been examined by many allopaths, and recently by a London surgeon of eminence, who pronounced her case to be one of uterine tumour. On examination, I found it to be cancerous ulceration of the womb, which had already destroyed the tissues so far, that an opening between the vagina and rectum, of more than an inch in diameter, existed, and the fæces ran through the vagina. Though feeling that nothing could save her life, I ordered Hydrastis, with a hope that it might alleviate the pain. I regret to say that it had no influence whatever over the disease. The management of this case was, of course, left in the hands of the local practitioner, an allopath, and she existed in a state of great misery, alleviated only by opiates and sedatives, for many months.

Case XIV.

Miss J., a lady of 42, has enlargement and induration of the body of the womb; has had it for many years. I fear it is scirrhus. Pains often very severe, shooting into the vagina, and often extending over the whole left side. She has been under treatment nearly twenty years, at first under allopathic, and more recently under homœopathic. The Hydrastis given internally has afforded no relief. I am about to try the effect of the cold infusion as an injection.

CASE XV.

Miss L., a lady of about 60 years of age, consulted me on November 6th, 1860. Hers was a case of fungus hæmatodes of the right thigh. She told me that for some years she had suffered from the accession of tumours on this thigh. The first came just above the knee. She had been operated upon by a London surgeon seven times, and he had removed nine tumours. When the present tumour appeared she consulted him again, and he refused to operate any further. She was a very stout woman, and her thigh bore the evidences of the severity of the operations in the large and deep cicatrices which remained. She had consulted Dr. Pattison, who also told her that her case was hopeless, and sent her home. There was a large and rapidly forming fungoid mass, from which dead portions frequently detached themselves. The fungus was as large as a fist. Also, in the upper and inner part of the thigh, there was a large tumour threatening to break. The stench from the fungus was overpowering. The Hydrastis appeared to exert no kind of power whatever in this case. The patient gradually became worse, and sank on the 29th of January of the present year, not quite three months after I first saw her. She appeared to die typhoid, poisoned by the cancerous matter entering the circulation.

In relating the above fifteen cases, in addition to the three mentioned in my former paper, I have adhered, as strictly as possible, to the discussion of the merits of Hydrastis in cancer. Where the Hydrastis has failed, other remedies have been resorted to. It is only just that I should point out that in my earlier cases I had been in the habit of ordering gentle frictions of the Hydrastis lotion over the tumours, but Dr. Pattison informs us that his experience leads him to avoid all friction. I had also been in the habit of keeping the parts warm by surrounding them with cotton wool. Dr. Pattison recommends that they should be kept cool. In my future cases I intend to adhere more closely to the general directions given by him in his little work. I can but regret the unprofessional style of this work, and that Dr. Pattison does not enter more fully into a detail of the appliances and outward applications which he uses.

From the tabular statement which I subjoin, it appears that Hydrastis has, under my hands, proved very successful in scirrhus and cancer of the breast; that it has failed, or been of but little service in cancer of the womb. The case of fungus hæmatodes was too far advanced to be able to deduce much from it; but the alleviation of pain which has followed the use of Hydrastis in other forms of cancer did not occur in this case.

	Age.	*Sex.*	*Disease.*	*Position.*	*Result.*
Case 1	41	Female	Scirrhus	Breast	Cured.
„ 2	42	„	Tumour	Ovary, right	Relieved.
„ 3	46	„	Cancer	Right breast	Much improved.
„ 4	77	„	Cancer	Right breast	Arrested.
„ 5	25	„	Scirrhus	Cervical glands	Much improved.
„ 6	55	„	Hard nodulated tumour	Dorsum of foot	Almost cured.
„ 7	45	„	Schirrus	Breast	Pain relieved.
„ 8	50 about		Ulcerated cancer	Left breast	Greatly improved.
„ 9	37	„	Cancer	Left breast	Cured.
„ 10	48	„	Cancer	Right breast	Pain relieved.
„ 11	38	„	Tumours (cancerous?)	Both breasts	Much improved.
„ 12	48	„	Scirrhus	Os uteri	No effect.
„ 13	56	„	Cancer, ulcerated	Os uteri, vagina, and rectum	No effect.
„ 14	42	„	Scirrhus	Uterus	No effect.
„ 15	60	„	Fungus hæmatodes	Right thigh	No effect.
* „ 16	22	„	Cancer	Left breast	Cured.
* „ 17	50	„	Ulcerated cancer	Left breast	Relieved.
* „ 18	abt 50	Male	Ulcerated cancer	Lip	Arrested and improved.

Add to this statement Dr. Bradshaw's cases.

	Age.	*Sex.*	*Disease.*	*Position.*	*Result.*
Case 1	40	Female	Carcinoma	Left breast	Relieved.
„ 2	58	„	Scirrhus	Left breast	Arrested.
„ 5	40	„	Ulcerated cancer	Os & cervix uteri	Slight temporary relief.
„ 6	60	„	Ulcerated cancer	Os & cervix uteri	No relief.
„ 7	37	„	Ulcerated cancer	Os & cervix uteri	Arrested.

---

* These three cases are those detailed in my first paper, published in the *Brit. Journal of Homœopathy*, January, 1861.

We have here the records of 23 cases, and they certainly go to prove that Hydrastis does exert a curative as well as an alleviative power over cancerous and scirrhous disease.

A REVIEW OF THE THERAPEUTICS OF PHTHISIS PULMONALIS.

By Alfred C. Pope, M.R.C.S., Eng.

Surgeon to the York Homœopathic Dispensary.

Phthisis Pulmonalis has, of late years, obtained a large share of attention from cultivators of medical science. To regard it as under all circumstances an incurable malady, one in which the physician can supply but partial and temporary relief, is no longer deemed justifiable. Post mortem evidence has proved, that tubercular cavities at the apices of the lungs have been healed. The histories of these cases have shown that years before death symptoms of phthisical disease had existed, that on some change taking place in the residence, occupation or habits of the subjects of them, they had passed off, health had been restored, and life prolonged to an average, and, in some instances, even more than average duration. Dr. Hughes Bennett gives interesting details of one case in the *Edin. Monthly Medical Journal* for March 1850.

The observations made in the post mortem theatre of the Saltpetrière Hospital in Paris, by Messrs. Rogée and Boudet, tend to confirm the view that phthisis pulmonalis, even in its advanced stages, has been cured. "Laennec, Andral, Cruveilhier, Kingston, Pressat, Rogée, Boudet, and others, have published cases where all the functional symptoms and physical signs of the disease, even in its most advanced stage, were present, and yet, where the individual survived many years, ultimately died of some other disorder; and,on dissection, cicatrices and concretions were found in the lungs."—*Bennett, Princ. and Pract. of Med.* p. 717. Two pages further on the same author observes,—"Although the curability of phthisis pulmonalis, even in its most advanced stage, can now no longer be denied, it has been argued, that this has been entirely owing to the operations of nature, and that the physician can lay little claim to the result. Andral, who early admitted the occasional cicatrization of caverns, states this in the following words:—

"'No fact,' he says, 'demonstrates that phthisis has been ever cured, for it is not art which operates in the cicatrization of caverns; it can at most only favour this by not opposing the operations of nature. For ages remedies have been sought either to combat the disposition to tubercles, or to destroy them when formed, and thus innumerable specifics have been employed and abandoned in turn, and chosen from every class of medicaments.'"

Dr. Bennett, however, thinks differently, and believes that the physician can and does assist materially in the cure of this disease. To a much greater extent than might be imagined is this true, even of an allopathic physician. The mortality in phthisis has been great, has been, indeed, little less than the whole number of cases hitherto observed. But, when we consider the treatment to which they have been subjected, and when we reflect that, it is to death by exhaustion that this disease tends, we shall find a difficulty in ascertaining how far the fatal terminations that have occurred are attributable to the very measures taken to avert them. It is, indeed, perfectly possible that under more favourable auspices, involving less physic and more food, less interference with, and more scope for the undisturbed display of nature's own rallying powers, many might have recovered who were cut off early in life. But now Drs. Bennett, Cotton, Turnbull, Hogg, and other allopathic writers on phthisis, assure us that the true character of the disease being better known, more reliable plans of treatment are followed out, and a considerable proportion of those attacked are permanently relieved, and enabled, without adopting any extraordinary precautions, to pass through the usual term of years allotted to man upon this earth. Homœopathic practitioners who have given their experience of phthisis to the world are not numerous. Dr. Epps writes regarding its cure in the most sanguine strain:—he says, "The alleged incurability of phthisis is the declaration of an error. It is the creation of an impossibility out of a difficulty."—*Consumption, its Nature and Treatment, by John Epps, M.D.* p. 111. At p. 115, he writes, "Homœopathy opens up the legitimately founded hope of the cure of phthisis; legitimately founded, first, because homœopathy presents a law, by which the action of medicines on the diseased body is regulated; a law which makes it certain that, if a medicine can be found which has the power of producing symptoms similar to those present in the disease, it will cure the disease so medicinally homœopathized; second, because homœopathy presents, by the vicarious sufferings of Hahnemann and his followers, a knowledge of the pure effects of medicine: and third, because the law being true, and the knowledge of medicines being sufficiently extended as to embrace medicines which produce pathogenetic effects, which cover, i. e. homœopathize, the special phenomena present in every special case of Phthisis, the use of such medicines must be curative."

The records Dr. Epps has published of his success in the treatment of phthisis are not calculated to give one much confidence in his diagnostic caution. A few symptoms which might have arisen from chronic, or even catarrhal bronchitis are detailed, attributed to phthisis pulmonalis, and their cure pronounced. With a single exception, the nature of the case is diagnosed without any aid having been sought from auscultation and percussion. Such a mode of illustrating the results of a plan of treatment, however much it may attract the attention, secure the admiration and excite the hopes of persons ignorant of pathology, can have but little weight with any who have had the advantage of a medical education, or been accustomed to more exact methods of investigating disease. And, further, this loose and careless style of reporting cases, especially of so formidable a disease as phthisis, supplies our opponents with an excuse, on the *ex uno disce omnes* principle, for withholding from homœopathic contributors to medical science that confidence to which, as a rule, they are so justly entitled.

Dr. Wyld, in his work on *Diseases of the Heart and Lungs*, p. 289, very cautiously remarks, "that it remains yet to be investigated what proportion of cases would recover under homœopathic treatment, aided by the best system of hygiene."

From the foregoing quotations it may be concluded, 1st, that phthisis pulmonalis has been recovered from after having been considerably developed without any medicinal treatment whatever. 2nd. That a similar result has followed the directions medicinal and hygienic of allopathic physicians. 3rdly. That by homœopathic medication a cure has been obtained. What, then, are the measures that have been adopted to secure this very desirable result? Their investigation constitutes our present purpose.

Phthisis Pulmonalis may be defined as a depraved constitutional state tending to the deposition of tubercle in the air cells of the lungs. The positive appearance of tubercle in the lung is ushered in by a period of ill health, frequently well marked and capable of being easily recognized. The constitutional cachexia manifests itself before its most dreaded consequences have become apparent. Louis goes so far as to say that "tuberculization commences from six months to two years before its announcement by cough or any obvious pectoral symptoms."

The chief features of this stage are, 1st. A gradual loss of weight. 2nd. Slowly decreasing bodily vigour. 3rd. Irritabiltiy of the mucous surfaces. Dr. Hogg (*Practical Observations on the Prevention of Consumption,* p. 42) thus summarises the symptoms these conditions excite:—"Emaciation, susceptibility to bronchial catarrh, mental lassitude, failing of bodily strength, shortness of breath, weakness of sight, falling off of hair, frequent perspirations, occasional palpitations, an unsatisfactory state of the digestive organs and alimentary canal, are the harbingers of evil."

Dr. Cotton describes the same state in the following words:—

"From some cause, for which no good reason can be assigned, there is a slow but marked diminution of bodily vigour, compelling the individual to abandon many of his accustomed pursuits; the spirits, nevertheless are good; and not only is the idea of consumption never entertained, but any allusion to it is at once ridiculed. So general, indeed, is this hopeful condition, this almost instinctive blindness to the real cause of distress, that in its absence, however suspicious certain symptoms appear, these may, with much probability of accuracy, be pronounced unconnected with phthisis. The complexion is usually either pallid or sallow; the expression is that of care, united with animation; the features are somewhat sharpened; the movements of the body are hurried and anxious; the mental condition is irritable and capricious, whilst every act betrays an effort, sometimes instinctive, and at others involuntary, to conceal the presence of disease. The appetite is uncertain, and there are frequent indications of imperfect digestion, as well as a tendency to passive diarrhœa. The pulse varies in different cases, but is generally small, and easily excited. The sleep is restless, unrefreshing, and occasionally attended by perspirations. Loss of weight is of invariable occurrence; sometimes the decrease is so rapid that it will attract the attention of friends; at other times, it requires the periodical use of the weighing machine to detect it: the latter, perhaps, is the most usual, but I have met with examples of such rapid emaciation, that several pounds have been lost within a few days. * * * There is considerable variety in the association of its different symptoms; some may be altogether absent, and many are also met with in other diseases; yet, when a number of them are found together, and the patient's antecedents, his occupations and habits of life, or any other circumstances, seem to be conducive to phthisis, there can, I think, be little reason for doubting their consumptive nature."

The difficulty of accurately assigning these symptoms to their right source, is enhanced by our inability to derive any information from auscultation. As yet tubercle has not been deposited in the lungs; their structure is so far unaltered. The existence of them, however, without any apparent reason, in a person predisposed to the development of tubercle, either hereditarily or as a consequence of an unhealthy mode of life, calls for our gravest attention, and demands the full adoption of all those precautionary measures that experience has shown to be best adapted to stay the course of the disease whose full development they precede. Certain it is that a period of illness so characterised, does, in many cases, usher in the deposition of tubercle; and during this stage it is that remedial measures, whether hygienic or medicinal, are most likely to prove beneficial.

As emaciation progresses and strength declines, cough makes its appearance; with increased breathlessness hemoptysis occurs; pains in the chest; nocturnal perspirations; dyspeptic symptoms become more troublesome; percussion denotes consolidation of some portion of the lung, in the vast majority of cases at the apex; auscultation tells us that at this part air is but feebly and with difficulty permeating its structure. During the second stage, the stethoscope gives evidence of the softening of the tubercular masses; during the third and last, the presence of a cavity is, by the same means, rendered manifest. The general symptoms are those of the first stage, only in much greater intensity. The cough becomes attended with expectoration, various alike in quality and degree. As disease advances the pulse rises, emaciation becomes extreme, and all the symptoms point to a rapidly fatal termination.

The rationale of the destructive process which constitutes phthisis pulmonalis has been variously explained. That the development of tubercles is one of the consequences, rather than the cause of the disease, is evident from the existence of a tolerably well marked morbid state prior to the manifestation of their deposition. Regarding the primary nature of phthisis, Dr. Cotton observes, that it is a "peculiar and obscure condition of the whole system, in which, instead of the healthy nutritive material required for the growth and reparation of the body, there is produced in the blood a morbid substance, which sooner or later appears as *tubercle,* or *tuberculous matter* in the pulmonary structures. This state of system is precisely identical with that known by every one as struma or scrofula. * * * In consumption, as in many other maladies, we are permitted to recognize the disease only in its effects. * * * * It is evident there must be *something* which constitutes the malady; but it would be vain to search after it;—it has no individuality; —it is a *process* which, like many others, is so subtle and far removed, even from our conceptions, that it seems destined to remain for ever beyond our reach; we are allowed to do nothing more than study its laws, and, in some measure, control its actions." pp. 2 and 3. Op. cit. Dr. Epps defines phthisis to be a disease depending upon a cachexia differing in different cases, each case of phthisis having a "special cachexia" of its own. Dr. Hogg describes it as depending on "constitutional debility, on a want of power in the system, on an impaired state of the digestive organs,—in a word, "on a strumous diathesis." Op. cit. p. 3.

Dr. Bennett regards tubercular deposit as the consequence of mal-nutrition arising from imperfect assimilation. A very similar view is that adopted by Dr. Turnbull. In answer to the question,—What is this constitutional state which causes the formation of these tubercular bodies?—he says,—"I believe that it is a state of imperfect nutrition: a condition in which the digestive organs are unable to manufacture from the food a perfect kind of blood, capable of nourishing every part, without allowing some imperfectly formed particles to escape at the same time." (*An Inquiry how far Consumption is curable.*) And, in another place, he remarks, "I am strongly disposed to think that deficient oxydation, that completing part of the process of digestion which takes place in the lungs, is one of the great causes of tubercular formations. * * * There is much reason to believe that imperfect digestion, combined with deficient oxydation,* or a want of uniformity in the action of the oxygen on the blood, and through this fluid in the whole system is the main cause." *The Progress in the Improvement in the Treatment of Consumption, &c.*, by James Turnbull, M.D., &c. London: Churchill, 1853. p. 38.

The opinion expressed by Dr. Cotton is that which seems most in accordance with the present state of our knowledge; viz. that phthisis depends upon a morbid condition of the whole system of whose pathological nature we know little, if anything.

---

* This is most remarkable, and affords an instance, in a general way, of the hopelessness of improvement in therapeutics from Allopathic sources. The theories of the state of the system that precedes the deposition of tubercles are as numerous as they are in general baseless and even fantastic. But among all that variety, there is one state, and one only we may almost say, of which there is something certain known, and this purely by the observation of a large number of cases—viz., it has been established by Rokitansky that cyanosis, pregnancy, tumours of the abdomen, distortion of the spine even in consequence of scrofulous disease of the bones, asthma, and several other morbid states, are incompatible with tuberculous deposition; and the only one thing in common with those various diseases is the circumstance of increased venosity, or imperfect oxydation of the blood! That Dr. Turnbull should have chosen this one out of the innumerable hypotheses open to him is unaccountable; but what are we to expect from any method of treatment based on such an error? Fortunately, nature is not misled by false theories, and the remedies, if good, will act well in spite of them; and pure air may do good though it may contain no more oxygen, and impure air bad though it contains not a particle less.—[Eds.]

Mal-nutrition of the tissues is, undoubtedly, one of its earliest features, as it is one of its most fatal characteristics; but in order to the development of tubercle, the imperfect digestion producing it must occur while the constitution is under the influence of a cachexia peculiar in its nature, tending under certain circumstances to the production of tubercle. Dyspepsia, however severe and intractable, does not necessarily culminate in phthisis.

Though at present unable to trace back to its origin, or to describe the exact nature of the tubercular cachexia, we have ample evidence from the investigations made to solve this still hidden problem, that its chief consequences are, 1st. An excessive waste of tissue: and 2nd. a feeble condition of the assimilating organs seriously impairing the function of nutrition. To check this waste of tissue, to relieve its local and general consequences, to improve the tone of the digestive organs and to select for the support of the system such kinds of food as may be adapted to their powers, constitute the leading pathological indications for the treatment of phthisis. The measures which have been adopted to fulfil these requirements may be conveniently divided into three classes:—1st. The Hygienic. 2nd. The Dietetic. 3rd. The Medicinal.

The HYGIENIC. The natural stimulant of the lungs to healthy action is pure air. To obtain this daily is essential. During the period prior to the actual presence of tubercle, the patient should be exposed to as bracing an atmosphere as he can bear. "Exercise in the open air not only promotes the digestive, but all the functions of the economy, and especially those of secretion; and its value in the treatment has been made strikingly apparent by some facts, in the recent Report of the Hospital for Consumption, which prove that this disease is much more prevalent among those who follow sedentary and in-door occupations, than among those employed in out-door pursuits."—Turnbull, op. cit. p. 57.

The hills of Malvern or Ilkley are infinitely better adapted to this the outset of the disease, much more likely to tone the constitution against its further advance, than the warm, moist, and relaxing atmosphere of the southern coast. Dr. Epps has long been in the habit of recommending a village called Warlingham, situated among the Surrey Hills, about 16 miles from London. He describes it as "particularly adapted to consumptive patients." He further remarks,—"The study of the Ordnance map will exhibit the striking peculiarities of this village both in connexion with the surrounding country, and in relation to its own locality. Besides this peculiarity of position, Warlingham is remarkable for the fact that there is no water except at a depth of 200 feet and more, and the water used is rain water. A walk, or a ride or drive at Warlingham, exposed to the sun on the south-west and protected on the east by a high hedge and copses, affords the means of exercise to the consumptive even on a cold sunless day."—Op. cit. p. 218. The locality appears from the description given of it by Dr. Epps, as well as from a report I have received from a patient who went there at his desire, to be eminently bracing and exhilarating and deserving of mention, with similar localities, as desirable for invalids during the period of delicacy which ushers in consumption.

Emigration to the Cape of Good Hope or to New Zealand for a lengthened period will, when phthisis appears imminent, not unfrequently re-establish health both thoroughly and permanently. The climate in both regions has proved eminently advantageous to phthisically disposed patients. Where such a banishment cannot be submitted to, a prolonged voyage has often been found sufficient to enable the patient to struggle successfully against the inroads of the tubercular diathesis.

During the first stage of actual pulmonary disease, great caution is requisite in exposing a patient to a strong bracing air. Pure air in abundance and sufficient exercise are as desirable as ever, and such a locality should in consequence be selected as will admit of these being obtained. Many places in our own country during the summer and autumn months will supply this desideratum. But during the chilling frosts of winter, and the bleak winds of spring, with the constant variations both in the temperature and density of the air, absence in a warmer and less variable climate becomes requisite. Dr. Cotton in his analysis of the climates in countries and places commonly resorted to by phthisical invalids, points out grievous disadvantages in all. Still, Dr. Cotton's criticisms refer rather to the climate during the whole year than to that which is experienced during portions of it. As already remarked, the winter and spring are the periods to be avoided in Great Britain. Dr. Mac Limont, in a paper published in the last volume of this *Journal*, records his personal observations on the climates of several countries, and their special adaptation to the several stages of phthisis. After reviewing the relative advantages and disadvantages of Nice, Mentone, Cannes, and Hyères,—places which may all be "said to possess a climate bright, dry, yet mild, highly stimulating, of considerable uniformity, and free from pernicious winds, at least during the months of November, December, January, February, and part of March,"—he remarks,—

"Nice, then, upon the whole, offers the greatest advantages to invalids of any of the places upon this coast; its extent admits of a variety of conditions of atmosphere, which do not exist at the smaller places:—for instance, those with whom a sea air agrees, may place themselves advantageously on the Promenade des Anglais and neighbouring localities; whereas patients who are more advanced in disease, and therefore requiring a less stimulating, more sedative, and somewhat moister air, will find the climate of St. Etienne or the Cimiez better adapted to their condition." The very unfavourable characteristics of this climate, upon which Drs. Meryon and Pollock have laid so much stress, consist chiefly in the unhealthy nature of the winds which blow at certain seasons, but *only* at certain seasons. These, during the *winter months*, are absent, and so render Nice a residence climatically well adapted for the first stage of phthisis. At the latter end of February, or during the first week of March, a removal to Pau is perhaps more suitable than to any other place; as, during the spring, the climate is "mild, sunny, and remarkably free from the disturbing influence of winds."—Dr. Mac Limont. Op. cit.

While the changes of climate from England to Nice, and from Nice to Pau are beneficial by reason of the facilities afforded for out-door exercise, good also is derived from the tonic excitement of change of scene and travelling,—than which, Dr. Turnbull remarks, he "knows of no tonic so certainly useful." The mental depression which may arise from leaving home and friends, the inconveniences involved in residing in a foreign land are in no inconsiderable degree compensated for by the novelty and variety of the circumstances and scenery with which the invalid is brought in contact. At the same time, the mind is diverted from that constant dwelling upon the ailments of the body which is so peculiarly prejudicial to recovery.

The first stage passed, softening of the tubercular deposits having commenced, the chances of recovery having been now materially diminished, a dry and bracing air having become too irritating to be borne with impunity by the morbidly susceptible air passages, a question arises whether it is advisable to deprive a patient of the comforts and conveniences of home, the society of relatives and friends, and the associations which have grown up around him, for the very doubtful chance of any good being secured from the milder air of a distant climate, and from the excitement, involving fatigue, incident to foreign travel. The voice of the profession at the present day is nearly unanimous in replying in the negative; and there are few medical men who will not endorse the opinion of Dr. Cotton, "that after tubercular softening has commenced, and for still stronger reasons after cavities have formed, the patient should not leave his native shores." In many instances, during this and the final stages, by a little careful management, patients will be enabled to live as long, and be as amenable to the resources of art, when remaining in their own homes, as they would be were they removed to the milder climates of the Southern coast. When, however, the residence of a patient is situated in an unusually exposed, bleak or damp part of the country, or in the midst of a densely populated town, where the air is loaded with organic impurities, such a removal is inevitable. In these cases the Isle of Wight, during the last three months of the year, and Torquay, Sidmouth, or Penzance, during the spring, will be found to afford the most frequent opportunities for inhaling a pure, soft, and healthy atmosphere.

While it is thus desirable and necessary to secure for the phthisical patient a residence in a climate where the air is mild, warm, and free from moisture, it is no less essential that perfect ventilation should exist in the apartments occupied by him. In the bed and sitting rooms, which should be lofty and spacious, opportunities for the free ingress of pure, and egress of tainted, air should be supplied.

The dress of the invalid also requires attention. It should be warm and lightly fitting, so that the chest may be in no way hindered from having free motion. Flannel worn next the skin has the double advantage of being a bad conductor of heat, and by its rough friction-producing surface of developing the action of the highly important organ it invests. Cleanliness of the whole body is equally needed both for the removal of disease and the maintenance of health. The power of reaction in the tubercular diathesis is generally feeble, and therefore, though sponging of the chest with cold water may be useful before any pulmonary lesion has actually taken place, great caution will be necessary in the employment of this powerful though apparently simple agent—*cold water.* The use of tepid water is less open to objection, and followed by careful rubbing with a warm coarse towel or flesh brush, tends to strengthen the chest and promote a healthy action in the skin.

As phthisis is pre-eminently a disease where loss of strength and flesh advances rapidly, and where, at the same time, the powers of assimilation are depressed, the diet to be advised becomes a matter of primary importance for our consideration. The chief aim in framing a diet table for the phthisical invalid, in all stages of the disease, is the selection of such aliments, as while highly nutritious, are, at the same time, easily digestible. The capacity of the patient for taking such nutriment as may be necessary will materially depend upon his opportunities and ability for exercise in the open air. Dr. Bennett very justly lays great stress upon this point. Dr. Stewart, of Erskine, some thirty or forty years ago, advocated a purely dietetic treatment for phthisis. Beefsteaks and porter were his remedies; but they were conjoined with horse exercise in a hilly district. When a highly animalized diet can be borne, it is undoubtedly that best adapted for the increase and maintenance of strength. Milk has from time immemorial been regarded as a curative agent. It should be taken freely; and when, as in some cases, it is found to disagree, boiling will generally render it digestible.

Cocoa, arrowroot, rice, sago, tapioca and similar foods will be found useful. Dr. Epps thinks he has seen advantage from a fish diet. The propriety of the use of stimulants is much debated. Dr. Cotton says that "wine or beer should be included in the dietary." In every stage of the disease he insists on the importance of their use. Dr. Epps (*op cit.* p. 237), in his emphatic style, remarks: "Wine is poison in this disease; so is beer; so is ale (pale ale, in reference to the sick, is deep-dyed delusion). All stimulating liquors are to be avoided." On this point, Dr. Turnbull (*op cit.* p. 56) observes: "Wine and fermented liquors will rarely form any part of a curative plan of treatment, but they constitute a great solace to the patient in the advanced stage." If milk, eggs, cocoa, and meat can be taken in fair quantity, stimulants are needless and undesirable. But cases are continually met with, where, without some slight fillip in the shape of a little sherry, claret, or beer, food could not be taken; while, with the assistance of this stimulant, not only is an appetite for it excited, but its digestion is ensured. To withhold the plainly demanded stimulant under such circumstances would be to do serious mischief. To regard it as necessary in all cases is erroneous.

Individual cases require as careful study with reference to food as they do with regard to medicine. Indeed, the influence of the latter will have much to do with the selection of the former; inasmuch as upon the corrective effects of medicine will, in no small degree, depend the power of the patient to appropriate dietetic agents. The importance of regularity in the periods for taking meals cannot be too strongly enforced. Rest also after food is desirable, that the digestive process may have every opportunity for advancing unimpeded. This completed, exercise, where possible, should be sought.

Of all the measures proposed for the cure of this terrible disease, none have been accorded so unanimous a sanction from men of all shades of opinion in matters therapeutic, as the inhalation of a pure, warm, dry air, a constant and free indoor ventilation, and a highly nutritious dietary. Attention to these points alone have, in some instances, we may reasonably conclude, sufficed to remove the tubercular pre-disposition, if not, indeed, to heal tubercular cavities. That a judicious medicinal treatment will materially assist and hasten the curative process is incontestable; but it is equally certain that drugs *alone*, whether homœopathically, allopathically or anti-pathically prescribed, will not be equal to the task we desire to accomplish.

The medicinal treatment of phthisis may be described as having a twofold object in view. First, to promote the absorption of tubercle, or the healing of cavities; and secondly, to remove those intercurrent, inflammatory, and congestive attacks to which phthisical patients are so prone.

Among allopathic physicians the first end is endeavoured to be attained chiefly by counter-irritants, tonics, and cod's liver oil.

Dr. Bennett, relying almost exclusively on the employment of cod oil, animal diet, gentle exercise and change of scene, prescribes but little medicine. He advises counter-irritation over the site of tubercular deposit: "A seton or issue, a succession of blisters, tartar emetic ointment, and croton oil are all beneficial." "Cough mixtures" and "anodynes" he repudiates entirely, as rendering the stomach intolerant of food. As a gastric tonic, he advises Tr. Ammon. Arom. ten drops in an infusion of Gentian or Calumba. The vomiting which occasionally occurs in phthisis he meets with Naptha, Cardamoms and Camphor mixture. Diarrhœa is opposed by the "mildest" astringents, or Antacids, as Carbonate of potash. In hæmoptysis he uses the probang and solution of Nitrate of Silver to the larynx, believing that in many cases the bleeding proceeds from follicular disease of the pharynx or larynx. In attacks of pleurisy, pneumonia, or bronchitis, the treatment on which Dr. Bennett depends "consists of at first the internal administration of the neutral salts, especially of tartar emetic in small doses, combined with diuretics in order to favour crisis by the urine. Subsequently quinine is undoubtedly advantageous."

Dr. Turnbull, of Liverpool, relies on cod oil as a neutraliser of the tubercular cachexia, the syrup of the Iodide of Iron as a tonic, inunction of the Iodide of Mercury or Iodide of Lead, and the administration of Liquor Potassæ with Iodide of Potassium, and decoction of Sarsaparilla to excite absorption of the tubercular deposit. In a later essay on the treatment of phthisis, already alluded to, he advises the use of Tar water as a tonic.

He tells us that it relieves the nausea and vomiting sometimes occasioned by the oil, and at the same time checks, in some degree, profuse expectoration and night perspirations. Creasote has similar properties, and is, we are informed, a useful remedy, when combined with metallic astringents, in diarrhœa. In reference to the tincture and extract of the seeds of the *Œnanthe phellandrium,* he says: "I have found them of great service in relieving the cough and other pectoral symptoms in almost every case of consumption in which I have tried them."

Dr. Hogg strongly insists on the value of counter-irritants producing purulent sores, and the administration internally of "grateful aromatic tonics." He is in the habit of applying a compound Burgundy pitch plaister (6 by 4), on which has been sprinkled three or four grains of Tartrate of Antimony. This is to be kept on for two or three days, according to the patient's powers of endurance, and the sore dressed with wet lint, a mild ointment, or a bread and milk poultice. The application is repeated in a fortnight or three weeks, the quantity of antimony being diminished. In the interval Gentian and Calumba are to be taken, acidulated with dilute sulphuric acid. Iron also, both as a prophylactic and tonic, is highly lauded by Dr. Hogg; and the use of cod oil, and that derived from the vegetable kingdom, is recommended, but not so strongly as by Drs. Bennett, Turnbull, and Cotton. The plan of treatment advised by Dr. Cotton is very similar to that of the authors I have already quoted. As a counter irritant he prefers tincture of iodine, and expresses a hope that it may be found to be a "specific." The syrup of the iodide of iron and the citrate of iron and quinine are his favourite tonics. He does not, like Dr. Bennett, totally abjure topical blood-letting and depressing remedies in intercurrent acute attacks, but, on the contrary, recommends their "cautious" adoption. Dr. Cotton has endeavoured, by an appeal to the *ex usu in morbis* mode of experiment, to determine what medicine is best adapted to cure phthisis. He has tried Chloride of Sodium, Iodide of Iron, Hydriodate of Potash, Liquor Potassæ, and Phosphorus; the results he has published have already appeared in the pages of this *Journal.* So far they have been barren of instruction for our future guidance. That any information should be expected by this method of searching out the special adaptation of a given drug to the cure of any disease, it is essential, first, that it be exhibited without admixture with any other medicinal substance; and secondly, that the points of difference between those cases in which the remedy experimented with has been of apparent service, and those in which its influence has been entirely or partially negative should be clearly and fully stated. The reports of Dr. Cotton supply neither of these requirements; his medicines are mixed with compound tincture of lavender, tincture of cinnamom and other substances; while his summaries of results are as bald, as void of detail, as they can possibly be. For example, in his remarks on the action of Phosphorus, we are told that, "of the four *greatly* improved cases, one (in the first stage of the disease) quite regained his health; and the other three (two of whom were in the first, and one in the third stage) left the hospital materially improved in every respect, their coughs being diminished, and their general health being greatly restored."—*Medical Times and Gazette,* July 6, 1861. What we want to learn from Dr. Cotton is, what were the symptoms which marked these cases, and what were those which characterised the five who were only *slightly* improved, and the sixteen who made no progress at all or became worse? How shall we recognise such cases again? Until these particulars are supplied, and these comparisons drawn, Dr. Cotton's experiments cannot be said to have had any useful or practical result. Some excellent remarks on the mode of investigation pursued by Dr. Cotton will be found at the 372nd page of the number of this *Journal* for July 1859.

Specifics almost innumerable have been vaunted as certainly curative of phthisis. Testing them in well-marked, unmistakeable forms of the disease has hitherto done little but serve to prove their uselessness. The last effort in this direction is that of Dr. Churchill, of Paris, who, on theoretical grounds, was led to the conviction that in the hypophosphites of soda and lime he had discovered agents that would prove "not only as sure a remedy in consumption as quinine is in intermittent fever, but also as effectual a preservative as vaccination in small-pox." Drs. Cotton and Quain, at the Brompton Hospital, have prescribed these remedies without any other than the most purely negative results. Testimony is, however, conflicting as to their merits. Dr. Dickson, of Jersey, writing in the *Medical Circular* for March 14, 1860, states that he has seen, both in Dr. Churchill's practice and his own, the most decided evidence of the value of these salts in the treatment of phthisis.

An anonymous writer, R. C. H., quoted in *Braithwaite's Retrospect*, vol. xli. p. 96, concludes a resumé of his observations on the action of the hypophosphites in these words: "My experience does not enable me to say that they cure phthisis, but that they retard its progress, particularly that of *softening*, I am quite convinced; and that they are a useful auxiliary in the treatment of phthisis, whatever other power they possess, has been established to my satisfaction."

A few week's since, my friend Dr. Ramsbotham saw with me a young lady in whom the early symptoms of phthisis were well marked. In consultation he advised the use of grain doses of the first trituration of Phosphate of soda three times a-day; remarking, at the same time, that he thought he had seen unquestionable benefit accrue from its use. An acute attack of pleurisy setting in a few days after the medicine was commenced, and necessitating a resort to Bryonia, renders me unable to draw, from this instance, any conclusion as to its efficacy.

At present, the evidence we have of the value of these preparations of soda and lime is too contradictory to enable us to speak positively regarding it. In the absence of any observation *in corpore sano*, and with but a limited amount of experiments *in corpore vili*, and these of a very unsatisfactory character, we can say no more than that it is possible a series of well-conducted *provings* might lead us to a knowledge of some particular phase of phthisis in which we might rationally expect to derive benefit from their use.

From the brief resumé now given of the most recent plans of treatment recommended by allopathic physicians, we may fairly conclude that upon pure air, in an appropriate climate, a nutritious and somewhat stimulating dietary, upon counter-irritation, tonics and cod's liver oil, do our brethren who refuse acknowledgment of the value of the homœopathic law depend for the cure of phthisis. Of the value of counter-irritation, without tonics and cod oil, we have no information; of the curative capabilities of tonics merely we have no means of judging; while cod oil alone has equally seldom been relied upon. But independently of the relative importance of these medicinal agencies in promoting the cure of phthisis, special objections exist with regard to the blisters and similar applications, and to the so-called tonic mixtures. The action which it is desirable to excite in the tubercular lung is a healthy one, and not such as that which approaches closely to a state of local inflammation, with general febrile excitement. The latter it is that ensues on the severe and repeated counter-irritation which constitutes the leading feature of the teaching we have reviewed. And further, the maintenance and increase of the strength of a phthisical patient is of primary importance; but under the irritation and exhaustion consequent on the general excitement and enfeebling discharges of blisters, antimonial and croton oil ointments, &c., it is impossible that the physical energies of a patient can either be sustained or improved. Gentian, Cardamom, Ammonia and other drugs, prescribed to increase the tone of the digestive organs or the vigour of the general health, like all other anti-pathically acting remedies, involve a stage of reaction, and so unless other influences of a more highly sanative nature are at work, tend rather to increase debility than to effect its removal. Their mode of action is primarily stimulating, and secondarily exhausting, rather than simply and solely corrective. To expectorants, anodynes and aperients we object, because they disorder the functions of the stomach and bowels beyond what the weakness of the patient will allow him bear with impunity, and because as a result of so doing, the power of digestion—upon which so much depends in the successful treatment of phthisis—is impaired. With regard to the allopathic treatment of intercurrent acute inflammations, we may remark that in its certainly depressing character is to be found its completest condemnation. Though the antiphlogistic system advised to be pursued in these cases is defined as "mild," it must be borne in mind that a very slight loss of blood, whether by the leech bite, vesication, or purgatives—for in each case blood is, to a certain extent, withdrawn from the system—is far more exhausting to the phthisical invalid than a much larger withdrawal of the vital fluid from a person suddenly attacked with a sthenic inflammation, in the midst of robust health, would be.

But one most important, *the* most important remedial agent employed by our allopathic brethren, has hitherto only been referred to by name. I have omitted any further allusion to Cod's liver oil until now, because its value has been recognised, with but one or two exceptions, as widely by homœopathists as by those who differ from them in therapeutics. As homœopathists, we deprecate the use of vesicants, tonics, expectorants, anodynes, and astringents, as these definitions are ordinarily understood—first, because they act injuriously, depressingly on the constitution; and secondly, because were these results but temporary, instead of being, as they but too often are, permanent, the risk of inducing them is unnecessary; the law of *similia* and our elaborate *provings* enabling us to accomplish the ends designed by these classes of remedies more directly and without hazarding any impairment of the vital forces. With regard to Cod's liver oil our position is different; to use the words of Dr. Cotton, it has "the singular quality of combining the properties both of *food* and *physic*." As homœopathists, all we have to ask ourselves is, first, is the *food* supplied in the oil appropriate and digestible; and secondly, is the *physic* it contains homœopathic to the tubercular diathesis and its wasting consequences. These two questions may, I think, be distinctly answered in the affirmative.

Oleaginous substances have, in all ages, been employed in the treatment of consumption, and the one we are now considering has long enjoyed a high reputation. At various times other oils, vegetable as well as animal, have been experimented upon, but while some degree of advantage has been generally observed to follow all, none have appeared to be so beneficial as those derived from fish, and especially so that from the cod fish. It is in, perhaps, the majority of cases easily digested, certainly it is so after a little perseverance in its use. When this is the case, its nutritive properties are of the greatest importance in supporting the patient, in increasing his strength, and adding to his weight. When, as occasionally happens, the stomach revolts at it, I have found Pulsatilla, and others have, I believe, found Creasote, so to correct the weakness of this organ, as to admit of its being taken with every advantage. It enables us to supply nutriment in a more decided, more concentrated, and more adequate manner than any other means at our disposal.

Various theories have been broached as to its mode of action on the system. Dr. Bennett regards it as an *analeptic* remedy, as a simple nutrient that is. Dr. C. J. B. Williams holds the same view, but in addition he thinks that it acts by checking the process of oxydation, which he considers to be the agency by which exudations become converted into unhealthy pus. Dr. Turnbull attributes its value to its chemical composition "furnishing fuel for the support of the important function of respiration and the maintenance of animal heat." And again, he remarks: "Cod liver oil appears to improve the quality of the blood by increasing the red corpuscles which are supposed to convey the oxygen from the lungs to the tissues of the body; by its attraction for oxygen, it would appear to increase the energy of the respiratory function, furnishing hydro-carbonaceous fuel well suited for this purpose, and thus, as well as by suppressing the purulent secretions, it would seem to promote a more uniform action of the oxygen on the blood and system." *The Progress of Improvement in the Treatment of Consumption*, &c, p. 38. Dr. Cotton considers all explanations hitherto advanced as unsatisfactory, and appears to think that it has some special, though unknown, action upon the tubercular diathesis.

All allopathic writers agree in one point, namely, that the Iodine which is present in the oil has nothing whatever to do with its utility; an opinion grounded solely on the infinitesimal amount of this substance contained in it. In its chemical composition as a nutrient, or as affording material for respiration, alone do they seek for an interpretation of its curative properties. But were this all that is requisite to produce the very important results that have followed its use, other oils, whether animal or vegetable, ought to be equally serviceable. But they are not so; and it is only those which, like it, contain Iodine, that can at all compete with it in the treatment of phthisis. Is then *Iodine* at all homœopathic to phthisis? Undoubtedly it is so. Moreover, the physiological effects of the oil have been shown to be almost exactly similar—so far as respiration and nutrition are concerned—to those of Iodine, as detailed in the provings we possess of that drug. Dr. Madden, in one of the best essays on Cod oil that has appeared, has shown this to be the case.*

Cod's liver oil thus presents us with food, in the shape of oil, of a highly nutritious easily assimilable character, and, at the same time, with a medicine homœopathic to the tubercular diathesis. From the fact that other oils effect a certain amount of good in phthisical cases, we gather that a portion of the benefit which accrues from Cod oil is derived from its oil simply; while from the fact that oils which are inferior to it in the treatment of this disease differ from it only in the absence of Iodine; and from the further fact, that the symptoms it will produce are like those of Iodine, and yet again, are like those of pulmonary tuberculosis, we conclude, that it is both to its oleaginous character, and to the presence of a remedy homœopathic to tuberculosis, that its remedial power in phthisis must be ascribed.

But experience has shown, that, while this medicated aliment has proved more useful in promoting the cure of phthisis than any remedy that has been tried, a large number of cases yet remain in which it has failed in effecting any good results. This arises, doubtless, in not a few instances from the short trial allowed to it, and from many other circumstances tending to prevent the full display of its remedial powers. Still cases occur in which, with every opportunity, it does no good. Careful analyses of the history and symptoms of patients benefited by the oil and of those who, after fairly testing it, have not succeeded in gaining any good from it, or at any rate, any more good than they would have done from other oleaginous substances, would constitute a valuable addition to the literature of phthisis.

---

* British Journal of Homœopathy, Vol. vi. p. 433.

When Cod liver oil is indicated, a steady persistence in its use is necessary. Dr. Turnbull speaks of cases in which it was continued with benefit for several years, and seldom omitted during this period without obvious retrogression on the part of the patient. He considers, however, that it ought to be withheld during an attack of acute inflammation; while Dr. Cotton, on the other hand, thinks that inflammatory action forms no barrier to its prescription.

In further considering the medicinal treatment of phthisis, I shall endeavour, first, to point out the remedies best adapted to cope with the tubercular cachexia, and then to draw attention to such as are most appropriate in the various complications that ordinarily arise, from time to time, in the progress of a case of phthisis.

The tubercular cachexia manifests itself variously in different persons. Practically, however, nearly all cases will be found to be comprehended in the three following classes; in the first of which, Iodine or Cod liver oil, in the preliminary and first stages, appears the most homœopathic remedy; in the second class, Calcarea; and in the third class, Iron. I will, therefore, endeavour briefly to point out the leading features, and to suggest the medicines which have been found to be best adapted to several stages of each.

1. The patient is thin, loses flesh rapidly; the complexion is pale, the cheek frequently surmounted by a pink flush; the lips exsanguine; the appetite very deficient; the power of digestion feeble; the bowels easily deranged; a sense of languor and weariness is felt after slight exertion; respiration is short and hurried; when tubercular deposition has taken place in the lung, the cough speedily becomes troublesome, and the physical signs of disease rapidly defined. The history of cases of this kind generally show a hereditary predisposition to tubercular disease. It is to such cases that Iodine is most homœopathic both before and after the presence of tubercle can actually be detected. In no form can this medicine be prescribed so advantageously as in that in which it occurs in Cod's liver oil. To this oil alone may these cases best be trusted so far as constitutional medicinal treatment is concerned. The amount required must be adapted

to individual cases, but a dessert spoonful of the pure, clear, pale-coloured variety, taken twice a-day, will usually accomplish all that can be obtained from it.

To the second stage of such cases the oil is still advantageous, but now Phosphorus or Bromine will generally be indicated. Some homœopathic physicians have found the former remedy to be best adapted to disease on the left side of the chest, while the latter is more efficient when the right lung is affected.

In the third stage Cod liver oil may still be given with confidence; and, at the same time, unless some other medicine appears to be specially indicated, China, given in the pure tincture, is the remedy most frequently useful. Dr. Kidd and Mr. Yeldham, during a discussion on phthisis, reported in the *Transactions of the British Homœopathic Society* (No. 3), spoke most highly of the results which they had seen follow its use in the advanced stages of phthisis.

2. In some cases the disease advances more slowly than in those just described. Emaciation is less marked; the complexion of the patient is pale and heavy looking; his cheeks puffy; the muscular tissue flaccid; the areolar tissue distended with serum; his appetite is capricious rather than, as in the cases first mentioned, deficient; nutrition is perverted rather than positively checked; the bowels are inclined to constipation rather than to diarrhœa, but are often extremely irregular. Cough is slight, but decided; difficulty of breathing is often well marked, especially on going upstairs or walking rather more rapidly than is usual; it is also very generally attended with palpitation.

To these cases experience tells us that the oil is not so well adapted, and that to them, as a rule, one of the salts of lime is most homœopathic. Phthisis, exhibiting itself in the manner I have just attempted to depict, may often be traced back to early childhood. In such children growth before puberty is slow. The development of the frame seems to be prevented by some depressing constitutional power. The complexion is pasty, the muscles soft and flabby. The bones are inclined to curve. The circulation is languid. Strength is but feeble, and all the usual physical energy of early life is absent. Here, likewise, Calcarea carbonica is an invaluable remedy. The tubercular cachexia in these cases is met both in its early phases and in its later stages by one and the same medicine. In cases that have thus originated, but which have advanced to the second stage, Lycopodium or Nitric acid will generally be found more useful than Calcarea. In the third, Hepar s., Arsenicum, and Sulphur appear most frequently homœopathic.

III.—There yet remains a third class of cases in which phthisis is manifested in a manner essentially different from either of those we have now considered. The patient is usually between 20 and 30 years of age; his family history is free from any hereditary taint of tubercle; he is of a sanguine temperament, of a florid complexion, with an active circulation, and an easily excited nervous system. Disease has in him originated in causes productive of malnutrition, and of frequent inflammatory attacks upon the pulmonary organs.

Epistaxis, hemoptysis, headache, congestions in various parts, are easily excited; hectic fever runs high; and the loss of strength is very rapid. In these cases Iron will be found our most serviceable remedy. Dr. Clotar Müller has very clearly pointed out its homœopathicity to this phase of phthisis in a most admirable paper, a translation of which appears in the 18th volume of this *Journal.* Dr. Müller uses, and on very substantial grounds advises the use of the Chloride, or rather the Perchloride of the metal, in doses of from one to three drops of the 1st to the 6th decimal dilution. The second stage of these cases is best met by Phosphorus or Bromine. The frequent attacks of congestion and inflammation which mark their course, often render Aconite, Bryonia, and Belladonna necessary. In the third, Dr. Clotar Müller again recommends Iron; China is also frequently useful.

In that very rapid, and generally fatal, form of phthisis described as acute pulmonary tuberculosis, or tubercular pneumonia, the symptoms generally correspond to Phosphorus, Iodine, or Hepar s. more closely than to any others. In a case of a very well marked type, and apparently hopeless character, occurring in a young girl of a highly strumous constitution, which I saw a few years since in Manchester with Dr. Galloway, Arsenicum and Calcarea given alternately produced a most rapid and unexpected change, resulting in complete recovery. The author of a paper in the *Monthly Homœopathic Review* for November last, regards Bromine as a valuable remedy in acute tuberculosis.

But while the cure of phthisis is most satisfactorily promoted by medicines corresponding to the tubercular cachexia, the course of the disease is so marked by intercurrent acute inflammatory disorders of the chest and bowels, by the occasional prominence of dyspepsia, or of some individual symptom, especially of the cough or exhausting nocturnal perspiration, that we are from time to time compelled to interrupt what may be termed our constitutional plan of treatment in order to meet indications of special urgency.

Nothing, for example, is more serious both from its frequency and exhausting consequences, than hæmoptysis. When a patient has been placed early under homœopathic treatment, this symptom is less often present than when allopathic medication has been depended upon. Ordinarily it is met with in from 60 to 70 per cent. of cases attacked. When profuse, and the blood of a bright arterial colour, Aconite, alternated with Arnica, are the medicines most commonly prescribed. I have found more prompt and marked results follow the use of the Acetate of Iron than any other medicine, giving drop, or two drop doses of the solution, repeated every twenty minutes; or less frequently, in proportion to the severity of the attack. This preparation is an uncertain one, and subject to rapid chemical decomposition on exposure to the air and on being united with water. I should therefore be disposed to substitute for it the Perchloride, as being more manageable, and probably equally efficacious, all the Salts of Iron appearing to be very similar in their mode of action. Ipecacuanha is a medicine frequently prescribed to stay hæmoptysis. Dr. Kidd speaks of turpentine in doses of five or six drops every six hours, as a most efficient remedy. Mr. Yeldham places great reliance upon China. In hæmorrhage that is active, Aconite, Arnica, and Iron, are our principal remedies; in that which is passive, China and Turpentine. The most absolute rest and silence, with cold applications to the chest, are essential. Ice, frequently sucked by the patient, is also advantageous.

The *Cough,* which forms so distressing a feature of phthisis, occasionally calls for especial attention. It is often modified, and even entirely abated by the general treatment; but, occasionally, its severity renders a special medicine necessary. When arising from the tubercular irritation, and independent of any congestion or inflammation, Ipecacuanha and Drosera; Stannum; Sambucus, and Senega; Hyoscyamus, Conium, and Hepar-Sulphuris will be found useful palliatives. Ipec. and Dros., when the cough is spasmodic in character with a free amount of mucous expectoration; Stannum, when connected with the existence of a vomica: Samb. and Senega, when the expectoration is profuse and the respiration oppressed; Hyos., Con. and Hep. s. in the troublesome exacerbations of cough which occur so frequently at night.

Pleurisy constitutes one of the most formidable intercurrent inflammations that happen in phthisis. Bryonia, Hepar Sulphuris, and Lycopodium, are the most clearly indicated remedies. Bryonia I recently gave in the 3rd and first dilutions in a very severe case without any good result, but drop doses of the mother tincture were followed by the most speedy relief. Hepar s., after the active symptoms are abated, is most useful; apparently promoting the more complete absorption of the exudation. Lycopodium is an excellent medicine when the symptoms are not severe; but in very acute cases it has, in my hands at least, been but of little service.

Pneumonia, whether occurring around the site of the tubercular deposit or at the base of the lungs, is of serious import; but of less so than pleurisy. Aconite and Phosphorus, when the disease is in the upper part of the chest and active, control it more completely than any other medicines; while, when in the lower lobes and of an asthenic type, Tartar emetic is our most effectual remedy.

Bronchitis requires chiefly Aconite, Ipecacuanha, and Tartar emetic.

Dyspepsia is frequently a troublesome symptom. Pulsatilla and Nux v. are the remedies most usually serviceable. When nausea and vomiting are prominent symptoms, Ipecac., Kreasote, and Petroleum are indicated. When arising from putrefactive fermentation in the stomach, the alternation of Carbo v. with Nux v. is very generally curative. During an attack of Dyspepsia, it is almost always necessary to suspend the use of the Cod-liver oil.

Diarrhœa constitutes one of the most serious and unmanageable complications of phthisis in its last stage. China and Phosphoric acid I have found to be most generally successful in controlling it. Mercury in both its soluble and corrosive forms is frequently useful.

The *Perspirations* which generally follow the dry hectic evening fever, rendering the patient's rest so little refreshing to him, are very frequently checked by the constitutional remedies already alluded to. When, however, they are not so, and are so profuse and exhausting as to require especial consideration, Nitric or Phosphoric acid, or Mercurius will be needed. My friend, Dr. Dunn, tells me that Crotalus horridus is more powerful in meeting this very important symptom than any medicine he has tried.

The *Sleeplessness* which is occasionally found independently of the cough, and appears to arise from that irritability of nervous system which marks some cases of phthisis, especially those which require Iron, is relieved by Aconite or Coffea, and in some instances by Silicea. In these patients exercise in the open air constitutes the best calmative of the excited brain.

EXPERIMENTAL REMARKS ON THE PHYSIOLOGICAL AND THERAPEUTICAL PROPERTIES OF THE DROSERAS.

By Dr. Eugene Curie.

(*Read before the Academy of Sciences of France, 2nd Sept.*, 1861.*)

Some years ago, when engaged in studying Vicat's *Treatise on the Poisonous Plants of Switzerland,* my attention was arrested at the article "Drosera," by a passage which struck me as being very remarkable in connection with certain medical doctrines. This plant, in fact, was said to be indicated as a remedy in phthisis by some old authors; and yet, according to others, it was said to be capable of developing some morbid symptoms in the respiratory organs.

---

* From the *Bulletin de la Société Médicale Homœopathique de Paris,* Nov., 1861.

I shall quote the passage to which I allude. The author is speaking of the Droseras rotundifolia and longifolia.

"Both these plants are acrid and corrosive; they cause ulceration of the skin and injure the teeth. Triturated with salt, they may be used as vesicatories. Notwithstanding that, the sundew is sold in the shops as a useful remedy in coughs, asthma, ulceration of the lungs, &c. Still, it is certainly poisonous for sheep; it affects their liver and lungs, and causes a cough that makes them waste away slowly."

This twofold action, physiological and therapeutical, the two terms of which may at first appear contradictory, reminded me of the theory of the homœopathicity of remedies; I accordingly referred to the Materia Medica of Hahnemann, where I found the following note:—

"Borrichius asserts that this plant (the Drosera) causes a very violent cough among sheep. Several medical men of former times employed it in some coughs of a bad description; and in phthisis with purulent expectoration they found it beneficial, and thus inferred its homœopathic efficacy in these diseases. But modern physicians, reasoning according to their antipathic theories, have denounced its employment, on the ground of its pretended acridity."

As Hahnemann does not mention the names of the authors he alludes to, in order to obtain information on this point, I applied to Professor Kirschleger, of Strasburg, who kindly sent me the following note:—

"In the sixteenth century, Dodoens was the first author who described and figured the *drosera rotundifolia* under the name of *rorella prima major;* and the *drosera intermedia* under that of *rorella secunda minor.* Tabernæmontanus (1588) copies Dodoens, and gives pretty accurate representations of the two species mentioned by the Belgian author. He attempts to determine their medical value. He declares that the rorellas have an *acrid* and *burning* taste, and that they are hot and dry in the *fourth degree.*

During the heats of summer, the rorellas never lose their humid plumpness; and on this account some herbalists, partizans of the doctrine of *signatures,* have imagined that the rorella should be given in pulmonary phthisis, a disease in which the *pituita* persists in spite of the *heat* or *fever.*

"Dodoens, who was a good Galenist, thinks that the Drosera is much *too dry* and *too acrid,* or *too hot* to be of service in phthisis; and he therefore rejects it as a useful remedy in this disease. Linnæus (*Fl. Suecica*) says that its acrid juice is considered a good remedy for warts and corns. Haller (*Pl. de la Suisse*) alleges that Drosera causes excoriations and ulcers of the skin. But long before these great masters, a German botanist, of the name of Siegesbeck, in an inaugural dissertation defended at Wittemberg, in 1716 (*Diss. de rorella*), is much more explicit on the subject of the plant. He found that the taste of the leaves is acrid; that the fruit and the flowers are bitter. The expressed juice curdles warm milk. The plant is injurious to sheep, particularly by exciting a cough which is *often fatal.* Another author, Heerman (*Diss. de rore solis,* Erfurt, 1715), is referred to by Siegesbeck. Those two physicians tried the sundew in phthisis; they allege that it allays asthma, removes hoarseness (*raucedinem*), and restores the lost strength. Siegesbeck prescribed a decoction of the fresh plant in loose cough, in catarrhal bronchitis; he also prepared a tincture with spirits of wine, which was of great use in catarrhal fevers (influenza), and in the epidemic hooping-coughs that were so generally prevalent in 1712; even in the first stage of these affections, when the cough is still dry, the Drosera is of great service. The pharmacopœia of Wurtemberg had admitted a *syrupus rorellæ* (compositus) and an *elixir pectorale Wedelii,* of which Drosera was an ingredient. In the second half of the eighteenth century Drosera fell into neglect; several physicians, in fact, abuse it."

Thus it is well attested by tradition that this plant has been employed in phthisis, and yet it seems equally certain that it exercises a hurtful action on the lungs.

Hence it occurred to us that it would be interesting to determine, with all the precision attainable by modern science, what was the precise physiological action of this plant, and then to ascertain if its alleged therapeutic action were real, and in how far it was connected with the theory known by the name of the substitutive homœopathic method, or the law of similars.

Though I cannot bring forward very numerous experiments, the results I have obtained are so conclusive, that I think it wrong to withhold them any longer, but I believe it only right to direct to them, as speedily as possible, the attention of new observers, of whom I hope there will be no deficiency; for supposing the facts I adduce to be confirmed, their theoretical and practical value is indisputable. Thus I have convinced myself that the prolonged use of this plant developes tubercles in animals to which it is administered; and secondly, its power to cure tuberculization has never failed with me, when I have been able to administer it in the first stage of the disease.

My physiological experiments are three in number. I have already mentioned that I have been unable to add to their number, partly on account of the difficulty of obtaining this very small plant, partly on account of the long time these experiments require.

It will be easily understood that a much longer time is required to produce lesions of the nutrition and the intimate structure of the tissues, than to excite functional symptoms depending on the nervous system. Thus it is that we see naturally developed with rapidity diseases like cholera, tetanus, &c., and that we can almost instantaneously produce similar artificial diseases by means of veratrum, strychnine, and other poisons. Tuberculization, on the other hand, is the work of time; and we might almost have foreseen what occurs in reality, which is, that a drug capable of producing by its action on the organism the formation of tubercles, will not succeed in doing so until after the lapse of a considerable period.

I chose for the subject of my experiments the cat, as that is, of all our domestic animals, the one least liable to exhibit spontaneous tubercular lesions. Indeed, it is not certain that tubercles have ever been found in them, for I am informed by competent authorities, that in this class of animals lobular pneumonia has been mistaken for phthisis. Thus the results should be all the more conclusive, and the quality of the subjects experimented on will in some measure make up for their small quantity.

Of the three cats, I killed (by means of ether), the first at the end of six weeks, after having made him swallow every day 15 centigrammes of Drosera, triturated with sugar of milk.

I killed the second after one year of treatment; he took at first a drop, and the dose was gradually increased till it amounted to 1600 drops per day of the spirituous tincture, evaporated in the air or in the bain-marie, and latterly in vacuo.

The third is still alive, and has been under the drug for six months. As he presents the same symptoms as the two others, there is every probability that the same lesions will be found *post mortem.*

As regards functional symptoms, all the three had diarrhœa at the commencement, and a very marked weakness of the voice was observed after six weeks of treatment.

It is remarkable that in the two animals I dissected, there was no perceptible lesion in the trachea, and yet in all three the voice was altered. They could certainly utter sounds, but they could not be heard; whereas, at the commencement of the experiment, their cries caused great annoyance to my neighbours.

The first cat, killed after six weeks, on being opened, showed beneath the pleura some almost gelatinous deposits, surrounded by an anomalous redness; on the whole, there was but little to be seen, and the characters detectable by the naked eye were not sufficient to prove the existence of tubercle, had not the microscope removed all doubt about the matter. I shall not here describe the characters revealed by its employment, but I may refer to the authority of Dr. Gratiolet, head of the anatomical department of the Museum, who kindly verified my examinations, and satisfied himself that these deposits were of tubercular nature.

Besides the pulmonary lesion, I found in this cat a very considerable enlargement of the mesenteric glands.

The second animal, killed after one year of treatment, showed much more characteristic lesions in the lungs, though they were not of great extent. These lesions consisted of small white granules, the size of a pin's head, situated beneath the pleura, and surrounded by a very red injection of the neighbouring tissue, to the extent of several millimetres; an injection that penetrated into the pulmonary tissue, but was unaccompanied by induration.

I only found these granulations under the pulmonary pleura. If there were others in the middle of the pulmonary parenchyma, they completely escaped my observation.

These gray granulations were moderately hard; they could be crushed on the glass, and showed under the microscope the following characters: irregular corpuscules, granular internally and externally; the external granulations brilliant and somewhat characteristic. Most of the corpuscules were $^6/_{1000}$ of a millimetre in diameter, almost unaffected by acetic acid.

I shall not describe certain accessory elements which were met with at the same time, because I do not wish at this time to treat of the formation of tubercular corpuscules. I shall therefore content myself with pointing out the above chief histological element, which constituted the principal mass of the granulation, and left no room for doubt as to its signification, any more than did the characters visible to the naked eye.

Besides this pulmonary lesion, I may mention the enormous development of the sub-maxillary glands, the hypertrophy of the glands of Peyer, and of the shut vesicles of the large intestine, containing an opaque fluid, that showed under the microscope glandular corpuscules.

In conclusion, I may allude particularly to the development of the acini in the spleen. They were so much developed that they could be seen through the exterior covering; and the spleen, when cut into, seemed to be formed entirely of them. They were decidedly larger than a large pin's head, and contained in the interior a mass of glandular corpuscules.

But, unlike what I had observed in the first cat, the mesenteric glands were not appreciably enlarged.

To resume, Drosera causes the production of tubercular elements in the lungs, and acts at the same time on the lymphatic system in general, thus presenting the analogy recognized in all ages between the tubercular affection and the lymphatic, not to say scrofulous, temperament. I may remark that the hypertrophy of the lymphatic organs was a hypertrophy of the proper elements of the organs, and was unaccompanied by any plastic deposit.

I admit that two experiments are but very few to draw conclusions from. The chapter of coincidences may always be alleged against them. Still, on reflecting that the experiments were made on cats, that these animals are seldom or never tubercular, it would require the admission of a most extraordinary coincidence to explain my selection of two tubercular cats; moreover, the third having presented, at the same period as the two first, the same symptoms of weakness of the voice, it is probable that it was affected in the same manner as they were; to these experiments may be added the tradition which is both scientific and popular; for I made inquiries of some provincial colleagues, and Dr. Dilhon of Beziers, who kindly questioned the country folk, tells me that the fact of the deleterious action of Drosera on the cattle was well known to the hill shepherds.

Reflecting on all these circumstances and collating all these considerations, I think there are strong grounds for presuming that future experiments will confirm those already made.

I pass over the consequences that may be deduced in reference to physiology and general pathology, and I come to the second point I am desirous of elucidating.

Drosera, I have said, when used in tubercular affections before the disease has gone too far, cures it.

This treatment has been so rarely unsuccessful in my hands, in the first stages of the disease, that I am inclined to refer the few cases where it has not succeeded to an error of diagnosis, or to a want of perseverance on the patient's part.

The dose in which I employ Drosera is four to twenty drops of the tincture in the twenty-four hours. A weaker dose is insufficient in the majority of cases.

The auscultatory signs in the various cases where the treatment was successful were the following: dulness more or less extensive, weakness of the respiratory murmur, roughness of inspiration or expiration, respiration in several impulses, prolonged expiration, *souffle* behind the scapula.

The functional signs were: cough generally dry, oppression, spitting of blood, thoracic pains, night-sweats, emaciation.

I enumerate all the signs in no particular order, because a profound discussion of the different cases would extend this essay to an undue length. I shall only observe that, under the influence of Drosera, I have seen all these symptoms diminish and even entirely disappear, provided the general state of the patient is still good.

The presence of a pretty large cavity even would not be a reason for despairing, provided the general state was still favourable.

This is an indispensable proviso, for in all cases in which the fever was of a continued character, when the food was not duly assimilated, which is ordinarily the case with phthisical patients, not only with those who have a cavity, but often also with some patients where the stethoscopic signs are not very marked—in such cases I have always found the treatment fail; still it generally caused relief for the first week, and what is somewhat remarkable, the patients seemed to die more quietly.

I only once gave the remedy in larger doses, and that without good result; hence I know not what to expect from the use of larger quantities of the drug; but as I have never seen a failure from doses of twenty drops when the general state was favourable, I am inclined to believe that if we could enlarge the limit of curable cases by giving larger doses, it would not be to any very great extent.

Such are the results which I offer to the consideration of the scientific and medical public. I hope that my colleagues, considering the importance of the question, will not be deterred from its impartial consideration by the kind of disfavour with which all that relates to homœopathy is still regarded by some minds. If they decide in verifying on their patients the curative efforts I have reported, and to institute trials on several patients in not too far advanced stages of tubercular disease, I am convinced that a fortnight's trial will generally suffice to encourage them to persevere; so rapidly do certain symptoms, such as the cough and pains in the chest, often disappear.

I may sum up the result of my trials as follows:—1st. Drosera given to cats for a considerable time produced tubercles in these animals; 2nd. Given to tubercular cases in the dose of four to twenty drops of the tincture, it cured the disease in its first stages, thus confirming in this particular disease the truth of the therapeutic law of similars.

ON THE USE OF CHELIDONIUM MAJUS IN NEURALGIA OF THE EYEBROW AND TEMPLE, ESPECIALLY ON THE RIGHT SIDE,

By Dr. Francesco Ferinat, Madrid.

(*From the Bulletin de la Société Medicale.*)

Chelidonium majus is a perennial plant with a sharp, bitter, and burning taste, yielding, when pressed, a yellow corrosive, milky juice; it grows in hedges and waste places among stones and rubbish.

Formerly this plant had so great a reputation, that there were scarcely any diseases for the treatment of which it was not extolled. It was said to be aperient, evacuant, cordial, detersive, and an excellent remedy against the plague. It was recommended in dropsies, congestions of the liver and spleen, jaundice, intermittent fevers, scurvy, scrofula, chlorosis, pulmonary catarrh, chronic affections of the chest inducing marasmus, rheumatism, tinia capitis and spots on the face. It was equally valued in the treatment of diseases of the eyes. Dioscorides alleges that in his time it was believed that the swallows made use of the juice of this plant for restoring sight to their young when they had become blind. Aristotle repeats, but Celsus disputes, this statement.

How extraordinary that this plant, formerly so celebrated, has in our day fallen into such oblivion, that it is only used to cauterise corns and warts. Homœopathy will repair this unjust neglect, and replace it in the position it deserves. Unfortunately, its pathogenesis is far from being complete, but homœopathy has verified its good effects in different morbid states more or less analogous to those in which it was formerly administered, and especially in diseases of the eyes. I often prescribe this medicine, and have proved its efficacy in those affections, especially in acute inflammations, where the eyes are swollen, injected, with a sensation of burning as if from the presence of a foreign body—when there is excessive photophobia, lachrymation, abundant sebaceous secretion, agglutination of the eyelids in the morning, shiverings from time to time, pain which generally extends not only to the forehead, but sometimes over all the head; this pain, beginning to be felt towards two or three p.m., is at its height about eight or nine, and prevents sleep or even lying down till nearly daybreak. It is not of these affections I intend to treat at present, but of neuralgia of the temple and eyebrow, chiefly of the right side; I say the right side, for, according to Boenninghausen, the action of Chelidonium is more strongly manifested on the right than on the left; although I have cured neuralgia of the left eyebrow and temple with this medicine, as will be seen by the fourth case. I wish to show the efficacy of Chelidonium majus in these neuralgias, sometimes so refractory and so subject to relapse. I am convinced there is no medicine more useful when we find present the characteristic symptoms which I shall point out in the five following cases.

CASE 1.—A young man, aged 30, tall, sanguine, of a lively and irritable temper, with fair whitish grey hair, grey eyes, and affected with herpes. Every morning, on waking, he felt some shivering, followed by a pulsative pain in the right eyebrow and temple. This pain, slight at first, increased so as to drive him almost to distraction; it extended to the forehead, and especially to the eye on the same side. The patient complained of a bruised sensation in the eye from the front to the back. The eye became red, watery, and very sensitive to light; pressure with the hand relieved the pain for a little; while light, exposure to the air, and especially moving and holding down the head, produced a considerable aggravation. The attack usually terminated about two or three p.m., at times with sour perspiration, and only left a certain sensibility of the eye to light. On considering that the attacks returned periodically in the morning on waking, that the right side was alone affected; that the patient was of a sanguine temperament and of a lively and irritable temper, addicted to alcoholic drinks, and that the pain was increased by moving and holding down the head, I selected Nux vomica, and gave it in the 15th dilution; it stopped the fits for some time, but they soon returned. The observations which Dr. Teste has published in his Treatise on the Systematic arrangement of the Homœopathic Materia Medica, on Chelidonium majus came to my mind, and I remembered that in two cases he mentions a neuralgic affection of the right eyebrow and temple. Without any other indication, I prescribed this medicine in the 2nd dilution, a spoonful to be taken every two hours. The result was so favourable, that the attacks disappeared after the second day of treatment. It is to be remarked that this neuralgia, which had been going on for more than twelve years, returned every two or three months with increased intensity, in spite of allopathic treatment. In the space of two years after Chelidonium majus had been given, they returned only twice; but the symptoms, although the same, were much less intense, thus proving the efficacy of the medicine.

Case 2.—A young man, aged 26, lymphatic, sanguine, stout and tall, with black eyes and hair, gentle disposition, but affected with herpes, brother of the last patient. The pain, preceded by some shivering, commenced about 11 a.m. in the right eyebrow, and increased in severity till noon. It then became insupportable, and extended to the forehead and the eye on the same side; the eye was red, burning, protuberant as if coming out of the socket, and watery; the attack ended about three P.M., sometimes accompanied by a slight perspiration. Quinine and Veratrine ointment, prescribed by an old school practitioner, far from relieving these terrible paroxysms, only aggravated them. At length the patient, in spite of a prejudice he had against homœopathy, which he looked upon as doing nothing, decided to consult me. I prescribed Chelidonium in the same manner as in the previous case. The attack which followed was so slight, that, to his great surprise, he could go out in the street, and since then (more than a year ago) it has not returned, whereas before such attacks frequently occurred.

Case 3.—A woman, aged 64, little, lymphatic, with fair skin, grey eyes, and fickle character. Every day, about 9 A.M., she felt in the right eyebrow and temple a pulsative pain, which gradually increased until it became intolerable; it extended to the forehead, and became tearing round the orbit. The eye was injected, burning, watery, and excessively sensitive to the light; the eyelids were contracted. Pressure with the hand relieved for a little; whereas light, movement, and free air aggravated the pain. The patient had yawnings and shiverings during the paroxysm. Chelidonium removed the attack on the second day of its administration; it returned six months afterwards, but with less intensity, and yielded to the same medicine; there has been no return for a year and a half.

Case 4.—A little girl aged 10, fair, pale, with blue eyes and amiable character. Every day, about three P.M., she was obliged to lie down on account of a pain in the left eyebrow and temple, accompanied by yawning and shivering. This pain, as described by the child, was pulsative; it increased gradually, causing her to utter sharp cries. The little patient complained of suffering in the left side of the head; her eye was injected, watery, and very sensitive to light. It is probable that pressure with the hand relieved it a little, for it was impossible to make her take it away from her forehead. About four or five P.M. a slight perspiration came on, and the attack disappeared so completely, that the child returned to her usual games. Chelidonium, 3rd dilution, cured this neuralgia after being given two days.

Case 5.—A woman aged 34, ordinary height, thin, bilious, dark and irritable. When getting out of bed in the morning, she felt some uneasiness in the right eyebrow and temple, accompanied by yawning and shivering. This uneasiness soon changed into a shooting pain which extended to the forehead and eye of the same side. The eye became red, watery, and sensitive to light. Pressure relieved the pain a little; while air, movement of the head, and particularly stooping, increased it considerably; taking food also aggravated the pain. The pain, after arriving at its maximum of intensity, diminished by degrees, and terminated about 4 P.M., sometimes by a little perspiration. The attack did not return after the second day of the administration of Chelidonium.

From these cases I conclude—

I. That Chelidonium majus is useful in all ages, sexes, and temperaments.

II. That it may be used at all hours of the day.

III. That it is a most useful medicine for removing neuralgic pains of the eyebrow and temple, especially of the right side, but also sometimes of the left.

IV. That it may be administered in repeated doses, for example every two hours, and in the interval between the attacks.

V. That in order to be successful, the pain must be generally pulsative and burning, or less frequently lancinating and tearing.

VI. That the attacks be periodic preceded in general by yawning and shivering, occasionally continuing during the paroxysm, and terminating most frequently by perspiration sometimes sour.

VII. That the pain always begins in the eyebrow and temple, extending chiefly, in proportion as it becomes more intense to the forehead, the orbit and the eye of the same side; the eye becomes injected, at times prominent and very sensitive to light.

VIII. Finally, that pressure with the hand relieves the pain slightly; while light, fresh air, movements of the head, especially stooping, aggravate it.

ON FIBROUS TUMOURS OF THE UTERUS.

BY DR. JOSEPH KIDD.

OF all the organic diseases of the womb, that most frequently met with is fibrous tumour. It most frequently occurs in unmarried women who have experienced difficulty and pain at the monthly period, especially if the menstrual secretion has been insufficient, or too profuse. In married women it is most often met with in those who have not borne children, or, in whom the process of child-bearing has been arrested, during the period of activity of the reproductive organs.

I have known it caused also by the use of cold sitz baths employed to check the profuse loss at the menstrual periods. This profuse loss is natural to many constitutions, and should not be checked as long as the health continues good.

Whatever lessens, or arrests the monthly period, before the vascular fulness of the ovaries and womb has relieved itself to the natural extent, predisposes* to the deposition of fibrine in the tissues of the womb or ovaries.

Fibrous tumour is sometimes solitary, but more often a series of tumours is found to exist. They grow generally from the substance of the uterine walls, and may be divided into those which grow outwards into the abdomen, or pelvis, and into those which project internally, distending the uterine cavity. The latter are much more dangerous; keeping the uterus distended are more liable to cause hæmorrhage. At times they fall lower and lower, so as to dilate the os uteri, and escape into the vagina, when their removal by ligature becomes feasible.

When the tumour grows from the posterior surface of the uterus, it sometimes projects into the space between the uterus and rectum, and there causes much discomfort, weight, and pain about the sacrum, aggravated by walking or standing.

---

* It is extremely important not to interfere with the monthly period, even though profuse, unless signs of positive exhaustion show themselves. No medicine should be given during the monthly period, unless some special distinct reason calls for it. Cold baths should be discontinued also.

The structure of fibrous tumour of the uterus, illustrates its origin and cause; a section generally shows a dense greyish structure, intersected by fibrous bands, in a concentric or laminated arrangement, as if the growth had occurred in progressive layers, probably deposited after each monthly period from the fibrine of the blood retained in the uterine vessels.

The utmost variety in size is to be met with; at times, so small as not to be recognized during life, except by the obstinate recurrence of hæmorrhage, and at others, so large as to fill up the greater part of the abdomen.

Generally, the tumour is but moderately hard; occasionally, it is so hard as to deserve the name of "stony." Such cases require great caution in giving an opinion; as, although most, even of the hardest, are non-malignant, yet a few are examples of true scirrhus and invariably end in death, generally by exhaustion from hæmorrhage, or by dropsy.

The symptoms most frequently caused by fibrous tumour, are dull, aching pain in the sacral and hypogastric regions, inability for exertion, dysuria, constipation or diarrhœa, and hæmorrhage; the latter I have found in a great number of cases to be the most dangerous and intractable symptom. Indeed, the obstinate persistence of menorrhagia first excites the experienced practitioner's attention and leads to its detection. The tumour seems to attract blood to the uterus and ovaries, as the ovum in pregnancy. As a foreign body, also, it keeps the blood-vessels open, in the same way as the retained placenta keeps up hæmorrhage, till its expulsion allows the uterus to contract.

In many cases, I have known even very large tumours to cause little or no inconvenience; so much so, that but for the enlargement, the patient would feel very little the matter with her.

The occurrence of pregnancy is a most dangerous complication, as the tumour causes a tendency to miscarriage, with flooding in the early months. If the pregnancy goes on to the full time, the fœtal head may be obstructed in its passage through the pelvis, so as to require the cæsarean section. If this danger is escaped, and the child safely expelled, the tumour also prevents the proper uterine contraction, thus keeping up hæmorrhage. After the delivery, there is still a liability of the fibrous tumour to break down, and cause pyemia, or peritonitis.

In the diagnosis of fibrous tumour, care is requisite to avoid confounding it with enlargement of the ovaries. Examination per rectum, as well as per vaginam, will enable us to avoid this. If the tumour grows from the side of the uterus, or if it is embedded in its substance, the lifting up of the tumour by the finger carries the womb with it; if ovarian not so.

In ovarian enlargement, the womb is generally drawn up; more often it is pushed down by fibrous tumour of the uterus. The latter is more elastic and generally rounder than ovarian tumour.

From flexures of the womb the diagnosis may be made by the uterine sound. The os uteri is large and open in flexures of the womb, but generally small and closed in fibrous tumours; when the latter, however, is pedunculated, and grows into the uterine cavity, the os becomes open and enlarged.

Cancer uteri is the disease most liable to be mistaken for fibrous tumour; but the gaping orifice, indurated lips, and the immovability of the body of the uterus in cancer, as well as the continuously offensive, or bloody discharge, afford a most marked distinction.

Cancer of the colon may be distinguished from fibrous tumour of the uterus by the malignant expression of the countenance, and by the existence of bloody, or purulent diarrhœa, or of obstruction of the bowels.*

The condition of the breasts, the freedom from hæmorrhage, and the history of the case, will easily present the early stage of pregnancy from being mistaken for fibrous tumour.

The prognosis of fibrous tumour of the womb should be cautious but encouraging. The disease is likely to be tedious—still often curable. Even if curable, it is a great comfort to the patient to receive the assurance that the disease is not malignant, nor likely to degenerate into cancer; that at the worst it only causes discomfort, and keeps up a liability to hæmorrhage, but is not destructive to life. Also, that when the menstrual periods cease, the tumour may probably disappear, and all its dangerous results cease,

---

* In a case of obstruction of the bowels, sent to me by Dr. Ozanne of Guernsey, I passed the colon tube up about 12 or 13 inches into the sigmoid flexure, threw up about a quart of tepid water to clear away the obstruction, and, from the microscopic examination of the discharge adhering to the end of the tube, I diagnosed cancer of the colon, which the result in a few months verified.

The homœopathic treatment of fibrous tumour illustrates the necessity we have to treat disease not symptomatically, but rationally. No medicine is known to cause the production of fibrous tumour, and although medicines, such as Sabina, Secale, and Ferrum muriaticum, are homœopathic to the symptoms caused by the tumour, yet their use is only palliative, and in no way curative to the disease. In many cases, this palliative treatment is all that can be obtained; still it is our duty, in every case of obstinately recurring hæmorrhage, carefully to search for the local cause, and if fibrous tumour is found, to apply our treatment, if possible, curatively, and not to rest satisfied merely with palliating the symptoms, and leaving the cause untouched.

From the pathogenetic effects of mercury, it seems to be the nearest homœopathic specific for the disease. The primary pathogenetic effect of mercury is to cause an increase in the quantity of fibrine in the blood; also, an increased activity in the fibrous structure and in the fibrous organs, such as the womb. It also sets up an increased tendency to hæmorrhage, and to muco-purulent discharge, from the membrane lining the uterine cavity. In practice I have found it the most useful medicine in the treatment of this disease; even when it does not cure, it affords much relief to the worst symptom (the hæmorrhage), and arrests the progress of disease in some cases.

Merc. cor. is, I think, the best preparation to use, especially when profuse muco-purulent excoriating leucorrhœa exists. To produce any decided impression on the disease, it should be given for many months. The dose I usually employ is from 1 to 3 drops of the 2nd decl. diln. in half a wine-glass of cold water, two or three times a day. From this I have never, in any case, found the least injurious effect. The general health usually improves very much under its use, the assimilation of food is more perfect, and the formation of unhealthy products seems to be arrested, and the tendency to hæmorrhage lessens.

Merc. biniod. is more suitable in cases characterized by a stony hardness of the tumour without much leucorrhœa.

This disease is one that requires prompt and judicious treatment, both medicinal, hygienic, and dietetic. In many cases the loss of blood is so excessive as to undermine the constitution, unless the hæmorrhagic tendency is arrested and the system well supported by nourishment and by stimulants. The best medicines to check the hæmorrhage are, Sabina, Secale, and Ferrum Muriaticum.

Sabina, when the discharge is bright, accompanied with pains and tenderness in the ovarian or uterine regions. I generally use the 2nd dec. dil. of the essential oil, in doses of from 1 to 3 drops, in a little iced water, every one, two, or three hours, according to the severity and urgency of the flooding.

When the discharge is dark, clotted, or thick, with uterine or bearing-down pains, Secale is indicated. It should be given freely and frequently, say about 5 drops of the mother tincture, every one or two hours, till the hæmorrhage is lessened or arrested.

Ferrum muriaticum I have found most useful when passive hæmorrhage exists, with little or no pain, but with total prostration of muscular power; also when irritation of the bladder accompanies the flooding. If the tendency to flooding exists at the monthly period, it is essential to enjoin perfect rest, *outside the bed*, or on the sofa, for at least four or five days. After the period has ceased, exercise should be taken, at first most cautiously, so as to avoid provoking a recurrence of the flooding. Abundance of nourishment should be given, especially cold beef tea, cold meat, &c. The free use of claret or port wine is often necessary; as, without wine, the bleeding will not be easily arrested in relaxed or lymphatic constitutions.

If the hæmorrhage is severe, there is no remedy so effective in stopping it as plugging the vagina with tow, taking care to leave a piece of tape attached to the tow, so as to enable the medical attendant to remove it without difficulty, in two or three days, lest the blood should putrify.

If mechanical obstruction of the bowels occurs from the pressure of the tumour, a daily enema of warm water into the lower bowel is advisable. One case under my care had been for five or six years under allopathic treatment, and took (at the advice of her medical attendant), a daily purgative for several years. On discontinuing this, she was agreeably surprised to find that the bowels acted with the most perfect regularity, every day, without any assistance.

The "bittern" of Kreuznach has acquired a widely celebrated reputation in the treatment of this disease. My experience of it is not very encouraging, especially as regards its use by external application and in artificial sitz baths. The latter seem to do more harm than good, by attracting too much blood to the pelvic organs. The external application (by wet linen and oilsilk), causes very great excoriation, and does not seem to produce much absorbent effect.

At Kreuznach this "mutter lye" is added in various proportions to the salt water baths, and when the patient is not prostrated by the resolvent influence of the bromine, it, in some cases, produces a sensible diminution in the size of the tumour. When I was at Kreuznach (in 1859), Dr. Prieger told me that at the full strength of the baths, the addition of "mutter lye" gives about eight ounces of bromine to each bath. This conveys an idea of extraordinary power in promoting absorption. Dr. Prieger also assured me that some cases of fibrous tumour were perfectly cured there, and many most sensibly became softer in consistence, and diminished in size.

It deserves to be known that this celebrated "bittern" of Kreuznach is not a whit superior to, nor different from, the "mother lye" of the Salt Springs of Cheshire, where the very same "lye" (after all the salt has crystallized out of the brine), is let go to waste. If an establishment were set up near these springs in England, much better results might be obtained than at Kreuznach, where the poor diet and the close oppressive heat of the place disagree with many of the English visitors.

The ordinary salt water from the springs is of little or no efficacy in the treatment of fibrous tumours. It is only the uncrystallizable residue (after the chloride of sodium has been deposited), which contains the bromides in any quantity. The diluting of this with soft water might have a better effect than with salt water, as the latter probably impedes the absorption of the bromides.

I append four cases illustrative of this disease:—

Case I.

J. L., aged 40, unmarried, of a dark complexion, bilious temperament, suffered for many months from increasing difficulty in passing water, till total obstruction came on in July, 1854. All other means failing to afford relief, I passed the catheter, which drew off about a quart of urine. This retention of urine occurred again and again.

Investigating the cause of this obstruction, I found a large tumour extending from the hypogastrium to the left iliac region, and downwards into the pelvis. The tumour was very hard, irregular in shape, about the length and breadth of an adult hand; pressure externally on the tumour, caused uneasiness in the region of the bladder.

Her general health was tolerably good; the monthly periods rather scanty and painful; for many years she had suffered from severe attacks of spasms in the iliac region, probably connected with this tumour.

I prescribed Merc. cor., 2nd dec. dil., three drops three times a day, rest on the sofa, and a light, simple diet. This treatment she continued for about four months; gradually the tumour became smaller and smaller, and finally so far disappeared as to leave but a scarcely perceptible thickening where the tumour existed. For seven years she has had no perceptible return of the tumour, nor any necessity for resorting to the use of the catheter.

This is an interesting case of fibrous tumour, altogether *external to the uterine cavity*, therefore unattended with hæmorrhage; growing from the anterior, superior wall of the uterus, it gradually encroached upon the neck of the bladder, till total obstruction resulted. The effect of the Merc. cor. was most satisfactory and permanent.

CASE II.

Mrs. ——, aged 44, lymphatic, sanguine temperament, 20 years married, no children, having noticed an enlargement in the lower part of the abdomen, she sent for me in May, 1855. On examination I found a large, nearly round, solid tumour, the size of a young child's head, growing from the superior fundus of the uterus. It extended to within about an inch of the umbilicus. There was little or no pain on pressure, and not much inconvenience, except from the increased loss at the monthly period, which amounted at times to flooding.

Tracing back the history of the case, I found that the monthly periods had been perfectly regular, but rather scanty, for two or three years past, till October, 1854, when one period passed without any appearance, and the same in October, 1855; about this time also, one breast became enlarged. For nearly a year she experienced a gradual fulness and hardness in the abdomen, and for some months past the catamenial loss had become excessive. The os uteri was found very small, the cervix undeveloped, the body enlarged and distended.

I prescribed Merc. cor., 2nd dec. dil., two drops in a wine-glass of cold water, three times a day, also rest on a sofa, especially at the monthly period, the free use of fresh vegetables and ripe fruit, as well as a full proportion of fresh meat. After three months' use of this treatment, the enlargement of the breast was quite cured, but the tumour apparently not much lessened.

The external use of Kreuznach Bittern was then prescribed as a compress, with oil-silk over the abdomen. After many months use of it, not making any decided progress, I advised her to go to Kreuznach, where for two months she used the baths, with an admixture of "mutter lye," under the skilful superintendence of Dr. Prieger.

On her return I found the tumour rather smaller and softer, but not any decided change, her general condition being, on the whole, improved, and no symptom present except the menorrhagia. She still remains under my occasional observation. The tumour certainly does not increase—rather the opposite—the tendency to menorrhagia has gradually lessened, and her general health has become re-established.

In this case, the tumour was evidently embedded in and continuous with the fibrous structure of the uterus. From its situation, it kept the fundus of the womb distended, and thus kept up the tendency to hæmorrhage. Being of an active disposition, she took a great deal of open air exercise, in the intervals of the menstrual periods, with great benefit to her general health.

Case III.

Miss ——, aged 38, nervous lymphatic temperament, for many years had suffered from profuse loss at the monthly period, of which, however, she took little notice, till, on a visit to the sea-side in October, 1858, a severe flooding came on (after a ride on horseback). This continued for a fortnight, and she recovered very slowly from it.

In November she came up to London to consult me. On examination I found a tumour, about the size of a hen's egg, growing from the posterior wall of the uterus, and pressing into the space between the uterus and rectum. The os uteri was small, the cervix and body natural. She complained of much debility, languor, nervous excitability, and inability to walk.

I prescribed China Φ with much benefit to her general health. After this was tolerably well re-established, Merc. cor. was given for a month, without any benefit; afterwards Kali bromid. 1st dec., and the external use of Kreuznach bittern. After some months I found every attempt to prescribe curative treatment only disturbed the nervous system, without any real benefit. I then discontinued specific treatment, and resumed that for her general health—viz., China Φ during the intervals of the periods, for some months, subsequently Ferri sulph., 1st dec. dil., for two or three months, perfect rest all through the menstrual period, and, during the intervals, open carriage exercise daily, a light, unstimulating diet, a glass or two of claret at dinner. Her general health became very much improved, and the loss at the monthly period lessened, but the tumour remains unchanged.

A singular circumstance in the treatment of this case is, that the tumour requires lifting up once in six or eight weeks;

gradually the tumour falls lower and lower into the pelvis, so as to cause increasing inability to walk, until it is again lifted up above the brim of the pelvis, by the finger introduced into the rectum.

CASE IV.

Mrs. ——, aged 44, sanguine temperament, has suffered for about eight years from an enormous fibrous tumour filling the abdomen; in size, it is equal to the full period of pregnancy. For five years she used the baths at Kreuznach every year, without any positive decrease in the tumour.

In 1860, she went from Kreuznach to Heidelberg, to consult the celebrated Chelius. After three weeks' residence there, a severe form of intermittent fever came on, which no treatment was able to arrest. With great difficulty she returned to England, and spent all the winter in London, under the care of an able allopathic physician. After six months' trial of many medicines (including Quinine in every form), without any relief to the ague, she dispensed with his services, and sent for me in April, 1861. I found her prostrate and emaciated; every other day a chill came on, followed by profuse, long-continued perspiration, and sleeplessness (every other night). I prescribed Arsenicum 2nd dec. dil., one drop four times a day. Soon after commencing this medicine a decided improvement set in, and the intermittent fever, that had resisted most skilful allopathic treatment for eight months, was perfectly cured by the Arsenicum in a fortnight. Her general health also became re-established, without, however, any diminution in the tumour.

This case is introduced here to illustrate the admirable effect of "arsenicum," and to show how questionable is the truly curative influence of Kreuznach baths in a severe case of fibrous tumour. A full course of the baths every year, for five years (with the occasional use of the Bittern in the intervals), had no perceptible effect in lessening the size of the tumour, although she consoled herself with the belief that it was kept in check, and prevented from increasing, by the annual resort to the baths of Kreuznach.

ON THE PATHOGENESY OF ACONITE: WITH CLINICAL OBSERVATIONS.

BY J. H. NANKIVELL, M.R.C.S., Penzance.

(Continued from Vol. xix., page 558.)

SCALP.—(" Tingling in the left side of the scalp; sensation as if pulled by the hair; bloated appearance of the face and forehead; single spots on the scalp which are sensitive to contact and cold air; stitches under the scalp; sensation over the scalp as if the hair were standing on end here and there, the scalp being very sensitive.")

The first sentence points out excitement in the cutaneous nerves, such as may arise from a variety of causes; it may be unimportant as when caused by exposure to cold, or it may be the first link in a chain of symptoms occasioned by lesion in the nervous centres. Every variation from the healthy state of the organism is worthy of the attentive consideration of the physician, more especially when the morbid symptom is in immediate relation with the brain itself.

The expression "bloated appearance of the face and forehead" suggests to the mind the observations made by Malpighi, Leuwenhæck, F. Dubois, Cl. Bernard, and M. Sucquet on the so-called derivative circulation of the blood, in other words, of the important part played by the vessels which maintain a direct communication in certain parts of the body between the arteries and the veins, and this being independent of the capillary circulation. Especially are such vessels found on the skin of the lips, nose, eyelids, forehead, scalp, &c. These vessels increase in volume with advancing years, and their especial function is to take off, to receive and return to the heart, any extraordinary supply of blood which from any cause may have been sent to an important organ of the body, and which, if all passed through the capillary vessels, might involve the organ in serious disease. Thus, during violent exercise, the important viscera of the body do not participate in the tumultuous excited state of the circulation as manifested on the surface of the body, but are enabled to carry on their functions in the same manner as when the body is at rest, or during sleep. It is highly probable, from the proving we refer to, that Aconite would be most especially indicated in apoplectic conditions or congestions of the brain or its membranes when the "bloated appearance" of the countenance is present. But, for example, the extent to which this injection of the face and scalp may exist, especially in elderly persons, is almost startling to witness. I have seen a man, aged 70, weeding in his garden, whose bald head had changed from its ordinary sallow tint to a deep plum colour,—so intense was the engorgement of the superficial vessels, he assured me, that he did not feel any degree of headache or inconvenience.

M. Sucquet states that in old men who have drunk intemperately it is found that the direct arterioso-venous trunks about the head and face are multiplied and developed. This is a kind of conversative effort of nature against the lethal effects of alkohol; indeed it is worthy of remark, how rarely excessive drinking produces organic changes in the brain. We have known several instances in which men have drunk to such excess as to bring on repeated attacks of delerium cum tremore, and even insanity, and notwithstanding make a good recovery, to sink after several years from organic disease of liver, stomach, or kidneys.

The other scalp symptoms in the text appear to be such as might commonly arise in rheumatic affections.

EYES.—("Staring look; distortion of the eyes about midnight; protrusion of the eyes.")

These expressions remind one of a peculiar and complicated affection which the French call la cachexie exophthalmique, and which has been so frequently found associated with goître and disease of the heart. Dr. Dufresne says: "Qui n'a dans sa clientèle vu de ces personnes, sèches, maigres, au teint blafard et jaunâtre, les yeux *saillants*, avec un goître, des ballemens de cœur, des fremissements continuels des gros vaisseaux." A case of this kind came under my observation a few months since; it was distinctly marked with this triple form of disease, and in addition there was occasional hæmoptysis and a kind of paralysis agitans of the hands. The patient, moreover, was subject to extreme mental depression. Aconite did not appear to be indicated by the "totality of the symptoms," but the patient mended under the influence of Puls., Ignatia and Arsenic. There was no evidence of pulmonary tubercle,—the hæmoptysis ceased, the strength improved. The organic changes in the thyroid gland and in the heart remained as they were. It seems that the lesson to be derived from our text is, that in the early stages of heart disease, or of goître, Aconite is especially indicated, if there is the slightest tendency to protrusion of the eyes. Certain it is that this interesting triad of diseases would amply repay a searching investigation. Who will interpret for us the sequence and consequence of the morbid conditions? Is the projection of the eyes the direct result of chronic aortitis? Has the goître anything to do with it by retarding the return of blood from the head?

Is there not in most cases of serious disease of the heart, even when goître is not present, a projection and staring expression of the eyes? Again in chlorosis and anæmia, so intimately associated with or related to this disease, what an interesting enquiry is involved in the fact of the prolonged and exalted state of the heart's action. Is it not probable that this violent palpitation with aortic murmurs, which for a considerable period may be the mere mimicry of heart disease, I say is it not probable that in many instances it goes on to actual organic disease? I once saw an extraordinary protrusion of the eyes brought on in a woman aged 70 by an attack of rheumatism of the orbits. The disease subsided, but the eyes never recovered their natural expression; the stare that remained was most unpleasant; it appeared to be produced by an effusion of serum or lymph in the sub-conjunctival tissue—at all events the conjunctiva soon after had a puffed baggy look.

("**Sparkling eyes; pressure in the eyes, especially when turning them and looking down; or accompanied with heat and burning in the eyes, especially in the left eye and over the eyebrows.*")

The first sentence may indicate cerebral erethism; the others seem to bespeak vascular engorgements of the orbits or of the eyes, the pain of the eyes during motion being possibly of a rheumatic type, or rather pointing thereto.

("* *Great photophobia. The pupils are much dilated.*")

I have transposed the two last sentences that they may fall into a more natural order and sequence. In the onset of inflammation of brain, intolerance of light (and of noise) is a prominent symptom, and it is then that Aconite is especially indicated; in the succeeding stage, when effusion is threatened, dilatation of the pupils loudly demands Bel.; indeed from the outset of the disease it may perhaps be wise and well to use Bel. in alternation with Acon, and possibly in the form of drop doses of the mother tincture.

("Black spots and mist before the eyes; sometimes accompanied with vertigo. Photomania. Obscuration of sight.")

Such morbid phenomena may exist either with or without fever; in both forms Aconite may benefit. A case has recently come under my treatment in which the patient, a woman aged 58, is the subject of the most intolerable noises in the head, flashes of light before the eyes, frequent retching and even vomiting, and yet is there no fever; but quite the contrary, a very cool state of the skin, small weak pulse, menstruation has ceased for several months. Can any *pathologist* divine what is the state of the brain in such a case as this? The whole sentence quoted seems also to point to amaurotic diseases.

("Ophthalmia accompanied with blear-eyedness; it is so *painful that he would rather die than live;* sometimes accompanied with pressure, heat and burning in the eyes, especially when moving the balls, and occasional sensation as if the eyes were swollen.")

The first question which arises from a consideration of this paragraph is—Can Aconite produce such distress in the eyes that the patient would rather die than live? Be this as it may, every Homœopath has seen cases of ophthalmia in which the patient's life had been a burden unto them until they had been treated by Aconite; and seeing, over and over again, the primary effects of this drug in the different forms of chronic lippitudo, he cannot but wish that in the onset of the disease our noble remedies had been used, so that the miserable effects of chronic ophthalmia on the cornea and on the eyelids might have been altogether prevented. It is scarcely necessary to say that in such diseases Aconite is not the only remedy which may be required. It will be almost always necessary to follow it up with such medicines as the constitution of the patient may seem to require, or a relapse will be almost sure to follow.

LIPPITUDO, &C.—About three months since, a poor woman came to the Penzance Dispensary a miserable sufferer from chronic ophthalmia. She had for years undergone a variety of treatment, but was constantly getting relapses, as she observed, from every slight cold. The edges of the lids were red and thickened, the interior of the lids much injected, the conjunctiva of the globes congested and relaxed, the corneæ of both eyes starred with old opacities, four or five in each. She took Aconite and Bel. alternately, and at the end of a week returned in a state of comparative ease and comfort; the inflammation of the eyes, intolerance of light, &c. having undergone great mitigation after another week, she was discharged relieved, and has not since returned. Again, a domestic servant, who had lived in London, and had been there in some eye hospital for chronic lippitudo, came under treatment six weeks since. This case was much like the former, except that there had been no opacities of the corneæ. The same treatment, with the addition of a weak solution of Bel. as a lotion to the lids, had a very satisfactory effect. These plain cases are not mentioned as being at all out of the ordinary character, but as simply corroboration of the Aconite healing.

(" * *Acute ophthalmia, especially congestive, rheumatic, and arthritic, previous to administering Bel. or Sulph. Swelling of the inflamed eyes. Injected state of the vessels of the inflamed conjunctiva and sclerotica.*")

This clinical group merely recites what has been proved over and over again by every member of our medical school, and the unmistakable facts are so notorious, that it would be a waste of time to make any comment on the text.

(" * *Ophthalmia arising from a foreign body having penetrated into the ball of the eye, with redness of the whites, a stinging pain with pressure in every part of the eye; photo-*

phobia and lachrymation. Dryness and heaviness of the upper eyelids, with pressure as from drowsiness. Painfully tensive red hard swelling of the lids, especially early in the morning.")

The reference to traumatic ophthalmia in these passages recalls to my mind a case which I attended in my allopathic days, and some particulars of which I here give.

About six years since, a boy aged 9 shot an arrow into the air and watched its descent. Unhappily the point struck him in the eye, wounding the corneæ and probably perforating the anterior chamber of the eye. Being afraid to confess the truth, he concealed the nature of the accident from his parents for three days, who thought that there was only a little catarrhal affection of the organ. By this time inflammation had come on to a frightful extent. I saw the boy and attended him in consultation with two other surgeons. Our "sheet anchor" was leeches, Atropine, and Calomel, which was given repeatedly, but without inducing ptyalism or any mitigation of the symptoms. The termination of the case was in disorganization, atrophy, and collapse of the entire globe. The loss of the first four days after the accident rendered the case almost hopeless from the first, but the question has often since then occurred to my mind—Would the event have been the same if Aconite, Arnica, and Belladonna had been used?

"The dryness of upper lids," in the second sentence, would seem to arise from a diminished secretion from the lachrymal gland. We have also added the expression "pressure as from *drowsiness.*" Are not these states very much like what we find to be the natural state when there is sleep or a tendency to it? It is probable that at night the secretion of tears from the lachrymal gland is considerably diminished, as they are not required for the purpose of moistening the conjunctiva; and it would seem that the secretion of the meibomian glands is at the same time increased to compensate for or rather to take the place of the tears, and to lubricate the edges of the eyelids.

(" * *Pressure in the upper eyelids from without inwards, and sensation as if the whole of the eyeball were pushed into the orbit, the eye feeling painful as if contused. Prickling* *and smarting of the eyelids as when a cold is setting in. Soreness and itching of the eyelids.*")

These afford satisfactory evidences that Aconite will produce symptoms *like* those of catarrhal ophthalmy, the swelling of the conjunctiva causing a sensation of pressure inwards, and accompanied with prickling and soreness which in natural disease so frequently leads patients to suppose that sand or some other foreign body has got into the eye.

("Yellowness of the sclerotica.")

This isolated symptom has, of course, relation to hepatic, gastric, or duodenal affections. It has been noticed that a bilious tinge in jaundice is commonly first noticed in the eye, and lingers there long after it has ceased to be apparent in the skin.

JAUNDICE OF CONJUNCTIVA.—It may be a mere sallowness of the conjunctiva, or it may be the first symptom of severe jaundice. If the latter be of an inflammatory type, the administration of Aconite would of course be indicated. I have treated a case in which at the commencement there was much fever, almost of a typhoid nature, dry brown tongue, thirst, accelerated pulse, &c. Here Aconite was first given, and up to a certain point it did good; the febrile symptoms abated, and the tongue became moist, but much coated in the centre. Mercurius was then given, but the evacuations did not lose their slaty appearance, nor did the saffron tint of the urine diminish. Taraxacum was then tried, and with charming effect. As the constipation in this instance was at first very obstinate, I did not hesitate on two occasions to give three grains of Blue Pill; and I hold that the administration of Blue Pill or Grey Powder is perfectly compatible with homœopathic orthodoxy. They both derive their potency from trituration, and the question of dose is still *sub judice.* Very recently a rickety child, aged 2, has been brought under treatment with marked jaundice; it took merc. 3, and at the end of a week was convalescent.

It is very interesting to notice the epidemic character of jaundice. A few years since I had to treat a boy aged 11. He took grey powder, and recovered. He had scarcely got well, when his brother, aged 9, had a similar attack, which ran the same course. A few months after I had to treat four children in one family, who were all ill of jaundice at the same time. They took nothing but Mer. sol. 3, and speedily recovered. Natures cures for the most part, no doubt, and yet we may, from past experience, well believe that these patients would not have so quickly recovered had they not taken Mercurius.

("The eye has lost all expression. The eye squints upwards. Complete blindness. The eye has become dazzled. She sees as through a gauze.")

These sentences vividly paint the terrible effects of inflammation of the brain, especially as witnessed in children and young persons. It seems almost incredible that the provings should have been carried to such an extent as we have represented. It would have been most interesting and instructive to have had a history of the recovery from the conditions mentioned, and to have known, for instance, how long the pathogenetic state of "total blindness" continued; and further, to have learned whether antidotes were given and with what effect.

("After a venesection she feels as if she had been transported from a dark into a light room.")

It is difficult to understand under what circumstances this bleeding was performed, and with what object. Are we to suppose that the prover was under the full and blinding influence of Aconite at the time when the vein was opened? And does the passage convey this lesson, that when the function of the retina has been so far interrupted by Aconite as to produce darkness,that vascular depletion will be one of the best antidotes? and, as a corollary, may we conclude that in some forms of amaurosis, congestive or otherwise, the most successful treatment would be by blood-letting? I trow not.

("Warm and undulating feeling in the eyes, and sensation as if it were too dark to read in a light room. He sees sparks and mist. He sees flashes and scintillations. Upon going into the street at twilight, the light of the lamps appeared tremulous, and he saw luminous vibrations before his eyes; he found it difficult to observe the countenances of those whom he met; he became anxious and giddy.")

The ***undulations*** so called, are more frequently moving zigzags when the effect of disordered function of the retina, from natural (non-medicinal) causes, the seeming motions of the sharp angles being from the centre towards the circumference of the eye like a mimicry of forked lightning, and are generally accompanied by indistinct vision, not alone from the confusion of the objects by the interlacing of the luminous zig-zag lines, but also from a degree of dimness of the sight which accompanies this state of things. I have met with several instances which have appeared to be the effect of indigestion, and a few which have been brought on by leaning the head forwards. The whole group of symptoms affords us broad outlines of disease having origin in the great nervous centres, or of that portion of it in immediate connection with the optic nerves. Such states often exist in a most exaggerated form, without fever or delirium; the patient may be haunted by a variety of hideous apparitions, but may all the time be quite aware that the phantoms are illusory. Where there is true inflmmation of brain, there is almost invariably, in the first instance, an exaltation of one or more of the senses. The hearing is more acute, the sight and smell more keen, and what is remarkable, an exquisite sensibility exists in perhaps one only of the extremities, or a part of it. In these states Aconite is our great and most reliable remedy, but afterwards, when the senses have become dulled, or obscured, it will be of no avail.

CASES OF POISONING BY BELLADONNA,

With Commentaries.

By Richard Hughes, M.R.C.S.; L.R.C.P. Ed. (*Exam.*)

The following paper does not profess to comprise all the cases of poisoning by Belladonna and its alkaloid which medical literature can furnish; it is rather a collation of such cases as, being well authenticated in all their details, should form a series of typical pictures of the more important physiological actions of the drug. The commentaries I have affixed to each case are intended to point out its salient features, to enquire into their physiological rationale, and to seek the indications afforded by them for therapeutical uses.

CASE I.

The first case I shall cite is one of poisoning by Atropine, recorded by Mr. Holthouse, surgeon to the Westminster Hospital, in the *Medical Times and Gazette* of Dec. 17, 1859:—

"At nine o'clock on Sunday morning, the 17th of July last, my second child, a hearty little boy, 3 years and 8 months old, was brought to my bedroom by the nurse, who said she did not know what was the matter with him, but he seemed very giddy, and could not stand (1). Her account was that, hearing what she supposed to be quarrelling between him and his brother, who were alone together in the breakfast-room awaiting our assembling at breakfast, she took him into the kitchen, and on setting him on his feet he fell down. She lifted him up, and told him to run along, but he again fell, and appeared to have no power of standing (1). On observing this, she immediately brought him up to me.

"His face was at this time flushed and mottled with white (2), his eyes brilliant (3), and his manner and appearance altogether very strange and excited, while the expression of his countenance was quite maniacal. He was evidently unconscious, and very irritable, striking his mother when she took him from the nurse. On placing him on the bed he immediately began to pick at the bed clothes, and to grasp at imaginary objects (4)." (It was now ascertained that he had swallowed a solution containing nearly half a grain of Atropine.) "The cause of the symptoms was but too apparent. I rushed with the child to the window, and the fully dilated pupils (3) at once confirmed my suspicion. Dr. Fincham was now sent for, but long before his arrival, and in about five minutes after the discovery, I administered 20 grains of Sulphate of zinc, and on the arrival of the doctor some mustard and water was also given; but three quarters of an hour elapsed from the giving the Sulphate of zinc before vomiting took place. The quantity of fluid expelled did not exceed that given with the zinc, which was ejected by one effort; and no subsequent retching could be produced by mustard and water (5).

"As no more vomiting could be excited; and it seemed probable that all the poison which was not absorbed had been ejected, stimulants were had recourse to, viz., brandy and water, Ether, and Ammonia, one or other of which was given every quarter of an hour; there was, however, great difficulty in getting the child to swallow, each attempt to do so producing paroxysms of suffocation, which appeared to threaten his existence (6); a great deal of what was put into the mouth was thus wasted. During the whole of this time till one o'clock p.m., the child was insensible (4), the pupils were widely dilated and immovable, the eyes open, and the lids not winking on passing the finger in front of them (3); there was occasional jactitation (7), the skin was pungently hot and dry, and covered with a rash closely resembling that of scarlatina, which the child was frequently scratching (2); the pulse was 170, and somewhat feeble (8).

"From 1 to 2 P.M.—Brandy and milk was given from time to time; an enema of Turpentine and Castor oil in gruel was also administered, and brought away a small quantity of fæces. He vomited once during this period, and was evidently becoming more conscious; he made efforts to speak, and said, 'Papa;' his face was less red, and the expression more natural.

"From 2 to 5 P.M.—The symptoms during this period exactly resembled those of delirium tremens. There was incessant rambling, great restlessness, a grasping at imaginary objects, and occasional screaming from fright (4). The character of the delirium varied; sometimes the child saw objects which frightened him, and the utmost terror was depicted on his countenance, and he clung to his nurse's neck, or threw himself violently in different directions, as if to escape them (3). This kind of delirium prevailed chiefly at the commencement of this period; towards the latter half, the delusions were of a more pleasurable kind—his talking was more intelligible—he mentioned the names of his brothers, his nurse, and 'mamma,' and grasped at his toys, as his whistle, which he blew, in imagination, and he drew imaginary sketches with his pencil, and was very busy two or three times in putting into his mouth and eating imaginary currants, &c.

"A mixture of egg and brandy, with milk and sugar, was given him at short intervals, and just before five he was sick for the third time. After this he fell into a quiet sleep, and so remained until 6 P.M.; his pulse having fallen to 144; his skin being still hot, but not so red.

"From 6 to 7 P.M.—Great restlessness and returning consciousness characterized this period; he recognized me by my voice, kissed me, and jumped out of bed, and said he wanted to ride on my shoulders—an amusement he was occasionally indulged in. The skin was less hot and red, and there was very little delirium. He refused to take any kind of food or drink (6).

"From 7 to 8 P.M.—There was less restlessness, and when quiet he sucked his thumb (a habit he always indulged in when well); he sneezed and rubbed his nose frequently; consciousness increasing, but intermittent. He recognised my watch, put it to his ear, and remarked, 'It's ticking;' but on giving it to him again a minute afterwards, it was not recognised, and he put it in his mouth.

"From 8 to 10 P.M.—There was more restlessness than for the last hour or two, and a constant motion of the hands to the mouth, as if eating something. Taking advantage of this action, a small piece of bread and butter was put into his hand, which he ate greedily; but there was a difficulty in getting him to drink. He talked frequently about persons and things which he fancied were before him (3). At a quarter to 10 his bowels were moved; he also passed water for the first time (9). A powder containing two grains of Calomel and five of Jalap was now given him.

"From 10 to 12 P.M., he lay on the bed tolerably quiet; he winks a little when the candle is put close to his face, but he sees nothing else; he has just said, 'I can't see mamma.' At a quarter past 11 he took, with some difficulty (6), a saline mixture, ordered by Dr. Fincham, after which his bowels acted to a greater extent than before, and he also passed water again.

When his mother lay down on the bed beside him, he raised himself, voluntarily, and kissed her twice. At midnight he took a little milk and brandy, and fell into a quiet sleep.

"July 18th, from 12 to 2 A.M.—He slept quietly till a quarter past one, when he awoke, and before he could be raised in the bed, had a violent and somewhat copious motion of a watery character. After this he took a small quantity of milk, and a teaspoonful of brandy, with some resistance (6); put his thumb in his mouth and again went sleep.

"From 2 to 4 A.M.—He slept very quietly till 4, when his bowels were again moved slightly, and he made water also. Though his pupils are as much dilated as ever, he can now distinguish objects, for he told his mother that he could see her (3); and he also took a cup of milk from her hand, and a little bread and butter.

"From 4 to 8 A.M.—He slept peacefully the whole of this time, lying on his back, with his eyes and lips a little apart, and awoke well. He remarked that he could 'see gan-mamma' over the chimney (a photograph of his grandmother), and he ate, with evident relish, a basinful of bread and milk. As the morning advanced he said, more than once, that he wanted to have his clothes on, and before he was dressed he was running about the room in his night-gown, playing with his toys. His difficulty in seeing small objects which were near him, was now the most prominent feature remaining of his illness; and his attempts to make out the letters of a newspaper which happened to be in the room, putting the paper first in one position and then in another, and eventually throwing it from him in disgust, were highly amusing. The dilatation of the pupils gave his face a singular expression, and they did not recover their normal size and movements for nearly a week (3)."

Upon this interesting and well-reported case I will make the following remarks. The figures within brackets refer to those inserted in the narrative:—

(1). The loss of standing and walking power observed in this and other cases of Belladonna poisoning, does not appear to be a true paralysis; it rather seems to depend upon a derangement of the co-ordinating function, which most physiologists assign to the cerebellum. This will be seen in subsequent cases. The intoxication of Alcohol presents similar phenomena.

(2). Heat, dryness, and redness of the skin alone might be due to a simple paralysis of its vaso-motor nerves. But the scarlatinoid eruption which appeared shews that these phenomena must rather be ascribed to a specific irritation of this tissue. The value of Belladonna in erythema, erysipelas, scarlatina, and other inflammations of the skin, is well known.

(3). Belladonna exerts a most striking influence upon the optical apparatus, from its intra-cranial centre to the conjunctiva externally. Marked dilatation of the pupil is an invariable feature of its poisonous influence, as of that of Hyoscyamus and Stramonium (hence called "Mydriatics"). I believe this to depend upon an excitation of the dilator fibres of the iris, through the medium of the branch of the sympathetic which supplies them. That Belladonna is an excitant of the sympathethic has been proved by Mr. Wharton Jones, who found that under its local influence the arteries become contracted, while under that of Opium they are dilated. And the following statement of M. Vulpian seems to me conclusive on the point. He is speaking of poisoning by Woorara. "The sympathetic nerve," he says, "sometimes continues responsive to galvanism more than two hours after artificial respiration has been practised; but after it is paralysed, Atropine no longer determines the least dilatation of the pupil. As long as galvanization of the cervical plexus occasions dilatation, however slight, of the pupil, so long Belladonna also will determine it."—(*Mem. de la Soc. de Biologie.* Transl. in *Brit. Jour. of Hom.*, vol. xviii. p. 348). Next, we have in this case impairment of vision amounting to entire amaurosis. That this arises from a direct anæsthetic influence upon the retina appears from the similar affection which obtains in the ophthalmic branch of the fifth. This is shewn by the absence of winking when the finger was passed in front of the eyes. For as reflex winking may be excited through the medium of both the fifth and the optic nerves, it follows that when it is entirely absent both these must be paralysed. The amaurosis is not, as some have supposed, dependent upon the dilatation of the pupil, for the two phenomena are not always co-existent. In the present case, the blindness had gone while the pupil was still dilated. Upon the persistence of the latter symptom, however, would seem to depend the presbyopia noticed at the termination of the case. Dr. Wright (*Medical Times and Gazette*, Sept. 17, 1859) considers that presbyopia is always due to dilatation, and myopia to contraction of the pupil. Lastly, we have the visual hallucinations, so interesting when, as here, combined with total blindness to all actual objects. These would probably depend on an affection of the intra-cranial centres of vision, the tubercula quadrigemina, which thus share in the excitement of function manifested by the whole encephalic mass.

(4). This excitement and perversion of function is nowhere more strongly manifested than in the cerebral hemispheres themselves. Mr. Holthouse himself compares these symptoms to mania and delirium tremens. Of the latter disease it is the active form which is simulated by Belladonna,—that which Mr. Solly distinguishes as "delirium ebriosorum," or "mania a potu," which is the direct consequence of debauches, rather than the result of a sudden cutting off of the stimulant; and which requires (in allopathic hands) leeches and tartar-emetic, rather than opium and brandy. The hallucinations of vision, and the disorder of co-ordinating function, complete the picture.

(5). The local action of Belladonna on the motor and sensory nerves is both paralyzing and anæsthetic. This is well seen in the difficult emesis which results from its introduction into the stomach.

(6). As the throat was not examined in this case, we cannot ascertain whether the difficulty of swallowing, especially of liquids, depended upon the specific irritation which Belladonna exerts upon this part, or upon its influence on the medulla oblongata. The paroxysms of suffocation which accompanied the early attempt at swallowing point rather to the latter view, and, combined with delirium, point strongly to its use in hydrophobia.

(7). The "jactitation" here mentioned gives only a hint of the chorea-producing power of Belladonna which will subsequently appear.

(8) A quick but feeble pulse is by far the most common sign of the effect of Belladonna upon the circulation.

(9). No urine was passed from 9 A.M. to 9·45 P.M., a period of nearly 13 hours. As there is no mention of its being in excessive quantity, we should be disposed to see here supression rather than retention. There is no evidence as to the cause of the suppression, whether paralysis, congestion, or vaso-motor irritation.

CASE II.

The following case is reported by Dr. H. M. Gray, of New York, and will be found in the *North American Journal of Homœopathy*, vol. i. p. 509.

"The subject of the poisoning was a child between two and three years of age, and the amount swallowed from eight to twelve grains of the extract. The following symptoms presented themselves upon seeing the case some thirty or fifty minutes after the drug had been taken into the stomach.

"The expression of the countenance was that of a person in terror, pupils widely dilated and immovable, the tunica conjunctiva highly injected, and the whole eye prominent and preternaturally brilliant (1). The face, upper extremities, and trunk of the body exhibited a diffuse scarlet efflorescence, studded with innumerable papillæ, very closely resembling the rash of scarlatina; the eruption terminated abruptly at the wrists and flexure of the thighs, the rest of the body retaining the natural colour. Skin hot and dry (2), and pulse much increased in force and frequency (3).

"The patient's manner was apoplectic (4), respiration anxious, and attended with the brazen, stridulous sound of croup (5). A constant but unsuccessful attempt at deglutition was observable, and at every renewal of the attempt the muscles of the thorax and pharynx would be thrown into violent spasmodic action (6). Severe engorgement of the venous trunks was also present. This state of partial coma was alternated by paroxysms of uncontrollable tendency to motion and rapid automatic movement, attended with convulsive laughter (7). No well-marked convulsions made their appearance, although, during the brief periods of sleep into which the patient would fall, a slight subsultus of the muscles of the face and extremities was noticed (7).

"The treatment was that ordinarily pursued in similar cases. The lower extremities were immersed in a mustard bath, while water and pounded ice were applied to the head. An active emetic was immediately administered, whose operation was induced by the application of local stimulants to the epigastric region, and the free use of warm diluents. The matter vomited contained several portions of the drug in a partially dissolved state. As soon as free emesis had been procured, a strong decoction of coffee was ordered, to combat the soporific effect of the poison, alternated with diluted Aqua ammoniæ, for the purpose of decomposing any of the Belladonna that might still remain in the stomach. The diuretic effect of the drug now began to be experienced, the patient evacuating an enormous quantity of limpid urine (8). The alarming symptoms passed off in about three hours from the commencement of the treatment, and the child soon recovered, with the exception of a moderate diarrhœa, and a slight enlargement of the pupil. The eruption had entirely faded."

In this case we have again (2) the hot and dry skin, with scarlatinoid eruption, and the irritation of the cerebellum (7) and medulla oblongata (6). But there are certain additional phenomena which we must consider in their order.

(1). In the eye, besides the dilated pupil and prominent eyeball, we have "the tunica conjunctiva highly injected." This must depend upon a specific irritation of this membrane, for the blood-vessels of the eye in general must be in a state of contraction through the excitation of the sympathetic. Accordingly, in a later case, we shall see the conjunctival irritation running on to true inflammation (Case 4).

(3). The pulse is here increased in force as well as in frequency. This variability shows the state of the pulse to be of little value as an indication for the choice of Belladonna.

(4). In the cerebrum, the symptoms of hyperæmia predominate over those of functional excitement. The condition of the patient is compared to apoplexy, instead of (as in Case 1) mania and delirium tremens. Belladonna is thus an irritant, not merely an excitant, to the cerebrum, and should be as useful in its hyperæmic affections as in its functional derangements.

(5). The difficult and stridulous respiration would seem to depend on a narrowing of the glottis from irritation of the medulla oblongata. The parallel symptoms observed in the pharynx (6) confirm this supposition. Belladonna would hence be indicated as a remedy in laryngismus stridulus.

(8). In this case Belladonna acts as a diuretic, while in Case 1 the urine was almost suppressed. Belladonna is thus neither an excitor nor a depressor simply of the functions of the kidney, but an irritant of the urinary mucous membrane. A small dose will, as in the present case, increase the secretion; while a larger one will diminish it, or even set up (as Christison notes) hæmaturia and strangury. The same is the case with Arsenic.

CASE III.

This case is derived from the same source as the last. Dr. Gray writes:—

"I will relate another case, concerning which I can speak somewhat experimentally, it having occurred in my own person. It is of interest only inasmuch as I was able to note accurately my own sensations during the operation of the narcotic. This is an interesting point in the investigation of cases of poisoning, and one about which little can be known, as patients are generally too much occupied with their fears or actual sufferings, to be able to impart much knowledge of their sensations. Although pretty thoroughly narcotized, I watched with some curiosity and care the phenomena induced by Belladonna. I had taken an unwarrantably large dose of the article in question, to quiet the pain of a severe neuralgic tooth-ache; not finding any relief, I repeated it in the course of ten or fifteen minutes, swallowing in all some eight or ten grains. About an hour after the last dose had been taken, the medicine began to induce its specific symptoms in the following order. First, vertigo, increasing to such an extent as to render it impossible to walk without staggering. The dizziness, which was at first transient, soon became continued and very severe. Now came on the affection of the eyesight, every object growing dim, as though a cloud were between the eye and it. Sometimes objects appeared double; and with an undulating motion passed before the eye. I observed that by a strong effort of the will, a concentration of the nervous power, this paralysis of the retina might for a moment be combated, but only to return with greater severity when the mental effort had been succeeded by its corresponding relaxation. The appearances of the eye were much the same as those mentioned in the former case—viz , pupil immovably dilated; eye prominent, dry, and exceedingly brilliant. The conjunctival vessels were fully injected. There was total absence of lachrymation, and motion was attended with a sense of dryness and stiffness. The face was red and turgid, and the temperature and colour of the surface considerably augmented. Pulse full, and about 120 to 130. The feeling in the head was that of violent congestion, a full, tense, throbbing state of the cerebral vessels, identically the same sensation as would be produced by a ligature thrown round the neck, and impeding the return of the venous circulation. The peculiar state of the throat next excited attention. The tongue, mouth, and fauces were devoid of moisture, as if they had been composed of burnt shoe-leather. The secretions of the glands of the mouth, and the saliva, were entirely suspended. A draught of water, instead of giving relief, seemed only to increase the unctuous, clammy state of the mucous membrane. About the bag of the pharynx this sensation was most distressing. It induced a constant attempt at deglutition, and finally excited suffocation, spasms of the fauces and glottis, renewed at every attempt to swallow. A little saliva, white, and round like a ball of cotton, would now and then be evacuated.

"The slight delirium that followed the action of the narcotic was of a strange, yet not unpleasant kind. I wished to be in constant motion, and it certainly afforded me an infinite deal of satisfaction to be able to walk up and down. The intellectual operations at times were very vivid. Thoughts came and went, and ludicrous and fantastic spectacles were always uppermost in my mind. I was conscious that my language and gesticulations were extravagant, yet I had neither power nor will to do otherwise than I did; and, notwithstanding my bodily malaise, my mind was in a state of delightful exhilaration.

"The treatment was very simple; cold douche to the head, and an emetic soon destroyed the dominion of the poison.

"In this case, as in the other, I found some difficulty in provoking the operation of an emetic, owing to the insensible condition of the stomach. After vomiting, the disposition to sleep became very urgent. Strong coffee, however, counteracted this tendency.

"One other fact relative to the effects of Belladonna is worthy of note—viz., its tremendous diuretic power. I have observed that it does not seem to reach the kidneys until it has been some time in the stomach, and has exerted its specific influence upon the brain. But its power over the secretion of urine seems to be very great. I am confident I passed in the course of an hour three pints of urine, accompanied with a slight strangury at the neck of the bladder."

CASE IV.

The following case is reported by Dr. Burton, in the *Medical Gazette* of June 15, 1848:—

"A porter of the Ophthalmic Hospital in Moorfields took half an ounce of liquor Belladonna in mistake for the fluid extract of Sarsaparilla. He did not immediately discover his error, but in five minutes or thereabouts after it had been committed, he was rendered sensible of his mistake by the unexpected occurrence of a sensation of heat and dryness in the throat, succeeded very soon by vertigo and slight aching pains in the limbs, but no headache. Upon the appearance of these symptoms, he immediately ran across the street, a distance of about 100 yards, to the residence of his usual medical adviser, Mr. Edwin, for assistance, and was by that gentleman directed to return to the Hospital and drink warm water until the stomach-pump could be got ready. The man did as he was told, and vomited on his return, before the pump was applied; but whilst in the act of drinking he became powerless, and in less than a quarter of an hour after the accident, delirious and insensible. He struggled violently in his unconscious state, and the combined strength of several men was required to hold him steady during the operation of pumping out the contents of the stomach. A large proportion of the poison was ejected by vomiting, and an additional quantity drawn out by the stomach-pump; but, notwithstanding the short interval which had elapsed between the acts of swallowing and removing the poison, for the most part, from the stomach, a sufficient quantity had been absorbed into the circulating system to affect the brain, and cause delirium, insensibility, and convulsions.

"The stage of delirious excitement was brief; and whilst in a comatose state, the patient was sent, by the directions of Mr. Macmurdo, to St. Thomas' Hospital, where he was placed under my superintendence, about ten o'clock, and immediately visited by the resident medical officer, Mr. Whitfield. When the patient was first seen by me, at half-past ten o'clock, he was totally unconscious of surrounding objects; he was lying supine, and all his limbs were equally powerless. There was no hemiplegia; his face was full and flushed; the head and general surface warm; the pupils widely dilated; scarce any iris could be distinguished, and the retina was quite insensible to the stimulus of strong daylight. The palpebræ of the left eye were puffy, and redder than those parts on the right side; and the upper left lid was prolapsed, as in ptosis (1). The breathing was stertorous, and the respiratory sounds, hastily examined over the anterior parts of the chest, were modified by râles. The action of the heart was feeble, and the pulsations of the radial artery were 116 in the minute, regular, and weak. The tongue could not be seen. The abdomen was rather contracted, and no distension indicating an accumulation of urine existed. The sensibility of the pharynx was so much impaired, and deglutition so imperfectly performed, that, on introducing a warm infusion of coffee into the patient's mouth, the liquid collected about the larynx, and his features became alarmingly turgid in consequence of impeded respiration.

"Under the influence of treatment, an amendment, indicated by a diminution of heat and fulness of face, and by returning consciousness, took place in the course of a few hours after the patient's admission; and about three o'clock in the afternoon he made an attempt to articulate the monosyllables 'yes' and 'no,' when roused by questions. The amendment, however, was only temporary; for, in the evening, violent delirium succeeded the stupor, and recurred a second time. The patient continued very unmanageable during the night, and could only be restrained with safety to himself and the neighbouring patients by means of a strait waistcoat. This state of excitement was protracted until about three o'clock next morning, when he again became calm, and a decided abatement of all the urgent symptoms was noticed at eight o'clock.

"At one o'clock in the afternoon, he had regained the power of speech and deglutition; and although a peculiar, wild expression of countenance remained, with confusion of ideas, he was sensible enough to thank his medical attendants for the aid they had afforded him. The tongue could now be protruded; the pulse had subsided from 116 to 68, and did not subsequently undergo any material variation. The sight of the right eye had become rather clearer, but that of the left eye more impaired; the upper lid more tumefied and prolapsed; the conjunctiva more vascular, and raised above the margin of the transparent cornea, which, in a few days, became opaque; and a small quantity of a puriform fluid had accumulated in the anterior chamber of the eye. The sight of the left eye was perfectly natural previous to the accident; and as no mechanical injury had been since done to it, its inflammatory state may be fairly attributed to the virulence of the Belladonna (1).

"All anxiety for the immediate safety of the patient ceased within thirty hours after his admission; but the abnormal condition of the nervous system prevailed several days: and notwithstanding he conversed rationally on the second day of the accident, he had no recollection of the events which occurred in St. Thomas's Hospital until near sixty hours from the commencement of his first delirium, or the third day of the accident.

"Upon recovering perfect consciousness, a remarkable numbness, extending over all parts of the trunk and extremities, attracted attention, and persisted for several days. No pain could be excited whilst this condition continued, by forcibly pinching the skin of the forehead or of other parts;

and although an unusual sensation was perceived by the patient at the moment, he could not, with his eyes averted from the operation, point out the precise spot subjected to compression; anæsthesia with consciousness co-existed, resembling the state often recognised during recovery from the effects of chloroform (2).

"The specific sensibility of the right retina was not entirely restored until after common sensation had returned to the general surface; and the sight of the inflamed eye continued dim, from the events of the secondary affection, until a later period; but both pupils were equally contracted and small when the patient quitted the hospital.

"The mental delusions during the delirium were for the most part, though not altogether, of an agreeable kind; and the prevalent fancy in the patient's mind was, that he had become suddenly rich, and possessed of a splendid mansion."

(1). The tissue-irritant power of Belladonna upon the conjunctiva is here plainly marked, and points to its use in catarrhal and scrofulous ophthalmia.

(2). It is rare that the anæsthetic effects of the drug are seen save in the eye and in those parts as the pharynx and stomach—which it reaches locally. This case forms an exception.

CASE V.

This and the three following cases are of boys who pilfered and ate some extract of Belladonna from Covent Garden Market. They are recorded by the house-surgeons of the hospitals to which they were taken in the *Lancet* of December 3rd, 1859.

"George J., aged ten years, was admitted on the evening of the 23rd of November, with symptoms of poisoning from swallowing a mixture of the extract of Belladonna with water. He was quite delirious, the delirium being of a mild vagarious or fantastic character. He could neither hear (1) nor speak plainly, and laboured under hallucinations, but was otherwise unconscious. The pupils were widely dilated, and the eyes had a staring look. At first he complained of pain in his throat and of his imperfect sight, objects appearing white to him. His pulse was very feeble, and almost countless. There was no discolouration or redness of the skin. The urine was scanty for the first 24 hours." A good recovery took place.

(1). The deafness here will probably depend on the same cause as the amaurosis. It is a comparatively rare symptom.

CASE VI.

"Charles G., aged ten years, was admitted about three hours before the previous patient, having taken about a teaspoonful of the undiluted extract of Belladonna shortly before. The symptoms were similar to those in Case V, with the addition of a flushed face and more active delirium; the grasping at imaginary objects, and picking of the clothes being also much more marked. There was no cutaneous eruption. He passed no urine, and the bladder was evacuated by the catheter, the quantity being scanty (1) and strongly ammoniacal. The pulse was very feeble and quick. Two leeches were applied to each temple, a blister to the nape of the neck, sinapisms to the feet, cold to the head, and a purgative and diuretic mixture. On the next day he was very pale; both pupils dilated, but the right very much more so than the left; vision is not present in the left eye, the lid of which is drooping, inflamed, and very painful when touched (2)." He recovered slowly.

(1). In this, as in the former case, the absence of micturition is seen to depend upon suppression rather than retention of urine. See remarks on Case 1, note (9), and Case II, note (8).

(2). The eye symptoms here are interesting. We have conjunctival irritation (as in Case IV), and there is a marked difference in the amount of dilatation present in the two pupils. The latter fact shows that the sympathetic excitation of Belladonna, which causes dilatation of the pupil, is a localized effect, and not symptomatic of the cerebral disturbance. The state of the pupil, therefore, in cerebral affections, is no necessary element in the indications for or against the use of this drug.

CASE VII.

"A boy aged nine, and another ten years of age, were treated as out-patients. Both were more or less unconscious, with slight delirium, dilated pupils, pain in the stomach, and absence of any skin eruption or dysphagia. Both recovered speedily. In one of these boys one pupil was much more dilated than the other, as in Case VI."

CASE VIII.

"J. D., a child seven years of age, was admitted on November 23rd, at half-past eleven P.M., with symptoms of poisoning by Belladonna. On admission he was wildly delirious, but quite fantastic, almost hysterical, laughing and crying, and not at all conscious. His pupils were widely dilated; no cutaneous eruption or discolouration, nor dysphagia; no tendency to stupor; no difficulty in micturition then, or during the night. He evidently saw visions, as in delirium tremens, for he was constantly grasping and picking at imaginary objects. He was quite blind, and stared vacantly." He rapidly recovered under the use of Liquor potassæ, which Dr. Garrod has shown to be destructive of the activity of Belladonna, Hyoscyamus, and Stamonium. (*British Medical Journal,* Dec. 12, 1857, Aug. 14, 1858.)

CASE IX.

The following case is extracted from *Orfila,* by Dr. Hempel (*Mat. Med.* p. 325.)

"A child of four years of age, of feeble constitution, but otherwise well, ate at eleven o'clock a quantity of the berries of Belladonna. The following symptoms soon set in: want of appetite, nausea, vomiting, symptoms of intoxication and slight delirium, inextinguishable thirst; afterwards, tumefaction and redness of the face and lips (1), raising of the eyelids, dilatation of the pupils, insensibility of the eyes to light, convulsive closing of the jaws and contraction of the muscles of the face and extremities, very feeble pulse and irregular respiration. Next day: increase of convulsive movements (2), with redness of the face and profuse perspiration; the pupils remained dilated; there was great rigidity down the spine; tumefaction of the abdomen, which was very tender to the touch (1); constipation and weak pulse. On the third day these symptoms continued, but in a less degree; the child complained of great pain in his teeth. Next day all the symptoms had disappeared. An emetic was given, followed by vinegar and honey."

(1). Erysipelas is here plainly marked in the facial symptoms; the value of Belladonna in this disease is well known. I have coupled the abdominal symptoms with this, because they look exceedingly like that erysipelatous peritonitis which forms the local basis of nine-tenths of the cases of so-called "puerperal fever." Belladonna is a tried remedy in such cases.

(2). The convulsive symptoms in this case are clearly described. They are probably, as in the other instances, choreic rather than tetanic.

(*To be continued.*)

REVIEWS.

1. *Homœopathy and its Opponents; being a Reply to Sir Benjamin Brodie, Bart., and others.* By Wm. V. Drury, M.D., M.R.I.A., &c. London: Leath, 1861.
2. *A Practical Reply to Sir B. Brodie's Letter on Homœopathy, with cases, showing the efficacy of Homœopathic Treatment in the Diseases of Animals.* By James Moore, V.S., M.R.C.V.S., &c. London: Epps, 1861.
3. *Has Sir Benjamin Brodie Spoken the Truth about Homœopathy and its Practitioners?* By J. Harmar Smith, M.R.C.S., L.S.A., &c. London: Tresidder, 1861.
4. *Homœopathy and Sir Benjamin Brodie, &c.* By C. H. Marston, M.D., L.R.C.P., Ed., M.R.C.S., Eng. Bath: Capper, 1861.
5. *A Letter to Sir Benjamin C. Brodie, Bart., P.R.S., in reply to his Letter in "Fraser's Magazine" for September,* 1861. By Wm. Sharp, M.D., F.R.S. London: Turner, 1861.

Sir Benjamin Brodie's letter in *Fraser*, which he wrote "without any great labour," has called forth, as might have been anticipated, a shower of replies, which it will cost him a considerable amount of labour to read, should he condescend to undertake the task, which is doubtful. But that is of very little importance; for none of the answer-writers, we conceive, has the hardihood to imagine that he will convert Sir Benjamin to homœopathy, or make him retract one of the offensive accusations against its practitioners, with which his letter abounds. If these answers circulate freely, as they are pretty certain to do among those who have read the attack that elicited them; and if they serve to disabuse any minds of the unfavourable impressions respecting homœopathy Sir Benjamin's letter was meant to produce, then will these answers have performed the utmost that could be expected from them, and homœopathy will be amply avenged on its formidable assailant. And yet we should imagine, from all we have heard and noticed since the publication of Sir Benjamin's condemnatory epistle, that its effect has been precisely the opposite of what he intended; for, on all sides, we hear the exclamation, "Is that all the great allopathic champion can say against homœopathy and in favour of the old practice?" We doubt whether any believer in homœopathy has had his faith staggered for a moment by the letter in *Fraser*—whether even any one hesitating about employing homœopathy has been deterred by it; and we know, as a fact, that several persons not previously favourable to homœopathy, have been led to consult a homœopathic practitioner in consequence of Sir Benjamin's masterly exposure of the system. We can easily understand this; for Sir Benjamin's admissions are most condemnatory of the old system, and all his allegations respecting homœopathy and its practitioners, such as his account of the mode of preparing dilutions, and his insinuation that homœopathic practitioners are unqualified empirics, are known by every educated person to be untrue. The enquiring patient, finding that its chosen champion admits the badness of the old system, and seeing that he can say nothing against the new system but what is palpably false, naturally thinks that the new system must be the better of the two.

Such being the effect of Sir Benjamin's letter, we should not have cared, and homœopathy would not have suffered, had no reply been vouchsafed to it. It is its own best antidote. Still its publication presented a favourable opportunity for popularly re-stating the homœopathic doctrine, and illustrating it by new facts and arguments; and it was not likely such an opportunity would be missed by those among us who possess the time and think they have the talent for such a task.

At the head of this article are the titles of five of these replies, enumerated in the order of their publication, or, at least, of their reception by us.

1. The first on the list, by Dr. Drury, is not a very brilliant affair. It is written in a rather slipshod style, quite unworthy of the author, who might have profitably spent a few hours in polishing his sentences and correcting his style before going to press. As a rule, we think the publication of cases from one's private practice objectionable in a popular pamphlet. Statistics furnished from a reliable source, particularly those of public hospitals, are what are best adapted to the popular comprehension. But if cases are so published, they should be clear and striking, and such as any non-medical person may understand. Dr. Drury gives three cases from his private practice. The first is one of croup, but doubtful if real membranous croup, notwithstanding the statement that "in the third and fourth day there was some vomiting, and a great many shreds of membrane came up." The next is called "rheumatic iritis," but, for aught that appears, it might be a simple case of catarrhal or catarrho-scrofulous ophthalmia. At all events, "great intolerance of light, injected state of the vessels of the eye, and feeling of sand," are not the characteristic symptoms of "rheumatic iritis;" nor is the remedy, *phosphorus*, one of those indicated by its pathogenesis for this disease, though it is decidedly so for catarrhal ophthalmia; and the homœopathic clinical records recount no instance, as far as we know, of *phosphorus* being useful in any rheumatic affection of the eye. The last case is called "illness of a horse," which seems to have been a simple catarrh, the cure of which, by anything or nothing, is no way remarkable. On the whole, we cannot congratulate Dr. Drury on the success of his reply to Sir Benjamin.

2. Mr. **Moore**'s pamphlet is what its title implies, "a practical reply" to Sir B. Brodie. Mr. Moore's patients do not consist of "individuals who have plenty of money, combined with a great lack of employment," who "contrive to imagine diseases for themselves." On the contrary, Mr. Moore's *clientèle* are in the habit of "getting more kicks than halfpence," and we are not aware that they have ever been accused of imagining diseases or malingering. The horses, cattle, and dogs, among whom Mr. Moore practises, are not afflicted with complaints that are "really no complaints at all." Grease, quittor, springhock, cough, sprains, inflammation of bowels, purpura hæmorrhagica, pneumonia, bronchitis, eczema, glanders, spavin, farcy, tetanus, pleuro-pneumonia, ozæna, diarrhœa, are very tangible realities; and, when they do not kill, often lead the horse to the knacker's yard, and the cow to the slaughter-house, which is about the least profitable use that these valuable animals can be put to. When a horse is ill, there can be no doubt on the subject; and when it gets well, after the administration of a remedy, there can be no reason to suppose that the influence of its imagination contributed to the result. Individual cases of horse and cattle cures, therefore, are not subject to the same objections that might apply to individual cases of human cures, where we must always allow a considerable margin for the influence of the imagination, both in causing the symptoms and the curative result, not to mention the occasional perturbing elements of wilful or involuntary deception. The cases given by Mr. Moore are admirably calculated to show the real power of homœopathic remedies over the diseases of the brute creation, and are well calculated to put a stop to the twaddle about the influence of the imagination, to which many of our opponents are in the habit of ascribing all our successes. The remainder of Mr. Moore's pamphlet has a certain rough-and-ready *horsey* smack about it, by no means inappropriate in a veterinary work.

3. Mr. **Smith**'s pamphlet is the substance of a lecture delivered at the Beaumont Institution, last October, and seems to be a compilation from the excellent reply to Sir Benjamin in the October number of the *Monthly Hom. Review,* from Dr. Drury's

pamphlet and from Dr. Sharp's *Investigation*, with a good many discursive remarks, more or less amusing, the whole interesting and appropriate for the miscellaneous audience of a literary institution; such as these literary institutions are, but scarcely deserving the immortal honours of print. His statement of the case of empiricism, at page 15, is well put, though not as he seems to think, original—viz., that in the use of specific remedies it is the allopathist who is the empiric, while the homœopathist is truly rational.

4. Dr. Marston's pamphlet touches all the points alluded to by Sir Benjamin Brodie, and refutes all his charges fairly enough, though without much originality. Its style is, however, most lachrymose. He "unfeignedly regrets" this, "deeply grieves over" that, and "could fairly weep" at something else, so that when the reader gets to the end of the pamphlet, he is left with the impression that the defence of homœopathy is one of the most dismal occupations a man can engage in. In an appendix, Dr. Marston gives a number of cases from his private practice, several of which are recorded in the most objectionable style.

5. The last work on the list, and the last published reply to Sir Benjamin, is Dr. Sharp's *Letter*. We are sorry to be obliged to confess that the perusal of this *Letter* has filled us with the most painful disappointment. From Dr. Sharp's well-earned reputation as a popular exponent of the homœopathic system, we fully expected that his reply to Sir Benjamin, so long announced, would contain a masterly defence of the points assailed by the allopathic champion, written in a broad, catholic spirit. We are, therefore, surprised and disappointed to find that Dr. Sharp has narrowed the controversy to a mere personal affair betwixt himself and Sir Benjamin.

When a handsome and rich young man on the look-out for a wife passes two or three weeks in a country house in company with several charming young ladies, and does not make an offer to any of them, it is pretty plain he does not want to marry any of them, and this is quite well understood, but no one dreams of taking offence at it. But if one of them, or some officious mother or aunt for her, ask him if he wont take her, she is laid open to a mortifying personal refusal. In like manner many of us have introduced to our allopathic brethren the charms of the young and beautiful Homœopathia. Among the rest comes Sir B. Brodie to look, but he does not admire; on the contrary, he turns back with renewed ardour to the battered, wrinkled, and raddled old dame, Allopathy. We regret, of course, his bad taste, but we don't see there is any personal offence, and we let him and his generation pass on in the hope of meeting men of better taste in future. Not so our friend Dr. Sharp, who returns to the charge as a personal question, and thereby, we fear, incurs the mortification of getting snubbed.

Dr. Sharp has thus put himself into a most unfortunate position, and if his present work does not equal his former ones, it is only that is impossible in such a position to make a satisfactory book.

Twenty years ago Sir B. Brodie wrote an article which virtually said, "I have studied homœopathy in Hahnemann and Curie, and I find it a delusion in which there is some good, but that is all negative, and much bad owing to that negative character, and its professors are impostors and charlatans." Then comes Dr. Sharp who studies homœopathy and is converted, and writes a book saying to Sir B. Brodie, "You know me as a friend and fellow surgeon and F.R.S. and no impostor or charlatan, therefore you will surely listen to the real truth about homœopathy." Again comes forward Sir B. Brodie, who now says, "I have studied homœopathy in Hahnemann, Curie, and *Sharp*, and I find it is a delusion," and so on *da capo, exactly in the same style as before.*

Dr. Sharp is thus put in a most mortifying and thoroughly false position, so much so that we do not see how he could manage to appear altogether at his ease under the rebuff. In fact, this is shown by the constrained courtesy in which he always alludes to Sir Benjamin personally, much more so than in his original book, where he speaks sharply enough. In writing a reply, what can Dr. Sharp in effect say? He can merely recapitulate what was said before. That, in reality, was quite sufficient; there is not an argument, statement, or insinuation that was not already fully met in Dr. Sharp's book as well as in fifty other homœopathic publications before his. So that is virtually what Dr. Sharp does; and, indeed, to save recapitulation, he merely refers to the parts of the book seriatim, with a few additional remarks that add nothing to the convincing power of the former. We are tempted to say *cui bono?* There is not one person who read the former work and was not convinced by it, who would be by this reply; and does any one suppose that Sir B. Brodie, if he reads this reply, will be influenced one way or another? None, we apprehend. He has Moses and the prophets, and if he heard not them, is he likely to listen to a *revenant* like this?

For the large class who take an interest in homœopathy, as patients, no doubt this and the other replies to Sir Benjamin are necessary, especially since the Magazine that published Sir Benjamin's letter refused space for any reply, and therefore the whole thing will, no doubt, turn to our advantage, in as much as all controversies help to advance the truth.

The art of popular writing on matters of science we take to be as much of teaching as can be apprehended by readers of ordinary non-technical education, combined with arguing on just as much *technical information as is given in the work itself.* To attain this art is difficult, apparently very much so, judging from the scarcity of good popular works on science. Dr. Sharp is one who has been happy in this, and has benefited homœopathy to a very great degree in spreading a knowledge of it among the public and dissipating their prejudices, and his tracts have even, we believe, attracted the notice of some medical men, and induced them to study further and experiment on homœopathy.

So far as refers to Dr. Sharp's popular exposition of the trite doctrines of homœopathy we have no need to say anything, except a repetition of the unqualified praise formerly given. But when in a popular exposition are included any points claiming peculiarity or novelty, or even of a controversial character, and also any new practical addition, then the work claims, and in this case actually challenges the criticisms of his medical brethren of the same school. And here, again, Dr. Sharp has put himself in an unfortunate position both for himself and us. Because, not only must we criticise honestly, but if we do not agree with him we are compelled to protest against his self-constituted championship.

The Materia Medica is the very core and essence of practical homœopathy; and all practical advance in homœopathy means little more than the development and completion of it. On this subject we find the following, which is partly addressed to the public as an example of the superiority of the Homœopathic Materia Medica and Therapeutics, over the Allopathic, and partly to us as a new and great improvement on the existing Homœopathic Materia Medica.

"I shall introduce a few pages from the 'Materia Medica' I have been for some time engaged upon, and give two remedies as examples of my method, and in illustration of the manner in which the doctrines I have been attempting to explain may be applied in practice. One of these drugs shall be an old one revived, the other a new one, which will, in this manner, make its entrance into the materia medica, and be presented for the first time before the medical profession, though, doubtless, should it be adopted by your party, some other name than mine will be attached to it as its discoverer.

"The opportunity, for which I am thus indebted to you, also enables me to convey to my own party, through this small specimen, some notion of the plan upon which I am working; and they can express to me, in any way that they think proper, their opinion as to the utility of such an undertaking, and whether they are disposed to encourage me to persevere with it or not.

"'GOLD—AS A POISON.

"'Professor Christison, quoting from Orfila, writes thus of gold:—'Its poisonous properties are powerful, and closely allied to those of the chlorides of tin and nitrate of silver. In the state of chloride it occasions death in three or four minutes when injected into the veins even in very minute doses; and the lungs are found after death so turgid as to sink in water. But if it be swallowed corrosion takes place, the salt is so rapidly decomposed that none is taken up by the absorbents, and death ensues simply from the local injury.' 'Even doses so small as the tenth of a grain have been known to produce an unpleasant degree of irritation in the stomach.' (Majendie.) 'In the state of fulminating gold this metal has given rise to alarming poisoning in former times, when it was used medicinally.' 'It excites griping, diarrhœa, vomiting, convulsions, fainting, salivation; and sometimes has proved fatal.' (Plenck.) 'Hoffman likewise repeatedly saw it prove fatal, and the most remarkable symptoms were vomiting, great anxiety, and fainting. In one of his cases the dose (which caused death) was only six grains.'

"'Metallic gold was pulverized or triturated by the Arabians. Several modern physicians have experimented with it, thus reduced to minute subdivision, upon themselves, taking, in divided doses, one or two grains. The result of these experiments shows that gold acts upon—

"'1. The *mind* and the *brain;* producing in the former great melancholy and depression of spirits, in the latter congestion.

"'2. The *chest*; causing dyspnœa, expectoration of viscid phlegm, palpitation of the heart, congestion of the lungs.

"'3. The *digestive organs;* fetid odour from the mouth, putrid taste, salivation, nausea, flatulence, vomiting, first constipation, afterwards diarrhœa, with burning in the rectum.

"'4. The *bones*, generally, particularly the nasal, palatine, and facial bones; giving rise to inflammation and caries.

"'It is thus seen that gold has a penetrating or deep-seated action; commencing in the brain, and affecting very specially the mind, passing through the chest and abdomen, and, finally, concentrating its energies on the bones in general, but particularly on those of the face.

"'GOLD—AS A REMEDY.

"'Gold was much used as a remedy some centuries ago. It was thought to promote the production of animal heat, to strengthen the heart, to restore the blood, to expel noxious humours, and particularly to exhilarate depressed spirits. For some time gold has been abandoned as a medicinal drug, it is now beginning to be employed again.

"'I have prescribed triturated gold with success in the following, among other, cases:

"'1. A case of extreme melancholy and despondency, arising from a Chancery suit; the patient was in a most distressing state; after various other remedies had failed, I prescribed the first trituration (one hundredth of a grain); he wrote after this, 'I felt better at once.'

"'2. A case of ozæna, of long standing, in which the constitution was greatly deranged, and the osseous system affected; this boy was permanently cured.

"'3. A child in a hopeless state of disease, one of the features of which was severe ophthalmia, with ulcers on the cornea in both eyes, which had resisted the prolonged and varied use of many excellent remedies; the poor child was emaciated and exhausted with suffering and fretfulness; and the mother was almost as bad from nursing, anxiety, and want of rest. The quantity taken was a minute fraction of a grain, in divided doses. The little patient was restored, by God's blessing, to perfect health.

"'4. A case of exostosis of the tibia, just below the knee in a boy; the first trituration was given with benefit; I believe a cure was effected, but, as is often the case when that happens, the patient's friends did not think it worth while to communicate this intelligence directly to me.

"'Gold is an antidote to mercury, relieving the neuralgic pains and other mischievous effects of that metal, especially when the bones have been injured by it; and *vice versâ*, mercury is an antidote to gold.

"'The organs selected by gold upon which to produce its effects are distinct, and its action profound; and, whether it be given in health or in disease, as a poison or as a remedy, the organs upon which it acts are, in both cases, the same.'"

The above, containing an arrangement of an old medicine gives us the opportunity of guessing at Dr. Sharp's method. He describes gold as an old remedy revived, though we do not know exactly the sense in which he uses these words. However that may be, gold was first brought into practice in modern times by Hahnemann about 40 years ago, and has been in daily use by homœopathists ever since, and has also been adopted into allopathy, as usual without acknowledgment of Hahnemann's claims. Out of the physiological and clinical materials above named, and without any addition to what is contained in all ordinary homœopathic manuals, Dr. Sharp gives us the above arrangement of the action of gold. But we are at a loss to find the exact sense in which it is intended to be given and judged. If it is to be taken as a short summary of the chief sphere of action of gold, to be added to the more complete physiological and therapeutic arrangements of that medicine, then we should say it was correct and good in its matter and form, though not in that respect original, as similar summaries are given by others, such as those in the later parts of Noack and Trink's Manual. Besides, we can hardly suppose an independent book would be published composed of mere appendices to other works already existing. Nevertheless, if it is so, the homœopathic profession will welcome it as good and useful. Next it may be intended as a short epitome or pocket book of the Materia Medica, where the most prominent and trustworthy effects are selected. In this sense it would also be acceptable, though we have already several very good works of the kind, and we had certainly expected something of a different kind from Dr. Sharp. In the third place, it is to aspire to a higher place and fulfil the desires expressed in the passage at p. 56. "There is nothing so much wanted in medicine as a Materia Medica which shall contain a true picture of the sphere of action of each drug. This picture must not be like Hahnemann's, made up of dismembered and detached fragments, and crowded with insignificant, and often, perhaps, imaginary sensations and other trivial matters, which mingle with and hide the meaning of the real and important symptoms; but a steadily drawn and well defined exhibition of all that is characteristic and specific in the effects which each drug in its various forms and doses is capable of producing. For some time I have been attempting this, but it is work of extreme difficulty and labour." Our wants are here well expressed; would that the author may succeed as well as an artist as a critic! Are we to conclude that the above short summary contains all that is really trustworthy in the physiological symptoms of gold contained in our Materia Medica? or, at any rate, that this summary being deduced from those of them that are trustworthy as the only practically useful result of them, the symptoms may be thrown aside as henceforth of no value. In short, that the omission of nearly the whole of the Materia Medica is not negative, caused by selecting a few of the best, leaving the rest to stand on their own merits in other books, but positive, the latter having been weighed and found wanting. Of course, if such really be the case, the knowledge of it, though disappointing, cannot be otherwise than useful, in fact essential. But we must first be convinced that Dr. Sharp has really ascertained it. In the first place, has he sifted the literature of gold in the Greek, Latin, and Arabian authors in the same way as Hahnemann, and if he differs, does he expect we should prefer his decision to Hahnemann's, and especially in a bald negative form like that? If so, he mistakes his position most lamentably. Again, as to the redundancy of symptoms in Hahnemann's provings; no doubt many are trivial and many narrated with superfluous minuteness. On this subject, however, there is not so much to be said as is thought; for such criticisms as can be made with scissors and pen, with the mere guide of common sense, is easily done by us all; and when that is done, the difficulty will remain just as great as before; for the number of symptoms necessary to express the real character of any drug is, and for ever must remain, very large, just as we cannot expect to obtain a full knowledge of a plant by looking merely at the seed, but must have the whole stem, leaves, flower, and fruit. The fact is, we had better all make up our minds at once that the idea of discovering some plan which will do away with the trouble and difficulty of those enormous masses of symptoms is nothing but a chimera like the perpetual motion—a vain dream of the indolent and incapable. Doubtless from time to time we shall get good compilations and manuals corresponding to the progress of the Materia Medica. But that progress must in future be an affair of monographs, just as pathology is gradually advancing by the better understanding of individual diseases. If, therefore, Dr. Sharp gives us one thoroughly proved medicine, he will add more to homœopathy than by a whole volume in the style of this arrangement of gold. Or again, are we to suppose the omitted symptoms are found to have been false? This is, we know, the real defect in our Materia Medica. It is not that the symptoms are trivial or redundant that constitutes the greatest difficulty, but that many are not true. Now there is only one way to test this, viz., careful reproving. Has Dr. Sharp done this for gold? If so, then let him give us the details of his provings that we may be satisfied, or even tell us that he has done so: till then, we

GENERAL LIBRARY, University of MICHIGAN

regret to say, his opinion is without any value. Oddly enough, Dr. Sharp seems to put no great faith in it himself; for in the cures he gives by gold, which are merely a few specimens of the commonest in our hand-books, he gives one in which a prominent feature was *ophthalmia with ulcers on the cornea.* Now, in his physiological part, there is no mention of its action on the eyes at all. Therefore this is not a homœopathic cure at all, but merely a blind empirical hit, or he must admit the validity of the Hahnemannic eye symptoms of gold which are omitted. So this plan sinks down to nothing but a bald selection of some of the actions of gold given in this form for shortness, which precludes any but the vaguest hints as to its action, and renders all differential diagnosis impracticable.

The last supposition we can form of this Materia Medica is that it may be an attempt to give the pathognomonic symptoms of the drug only. This, if possible, would certainly be the greatest boon to the practitioner, and it has, to a certain extent, been done by Hahnemann, in giving adypsia as the cardinal indication for Pulsatilla. What we mean is this. Supposing it could be said of Ipecacuanha that nausea is the cardinal symptom, and unless that is present, however else it might correspond, it would not be the right medicine; and if the same could be said of dilated pupil for Belladonna, these would be most valuable facts; and a volume, going through the Materia Medica in that way, would be invaluable, though by no means superseding the full provings. We have no reason to believe in the possibility of such a discovery as a general character of medicines. But, however this may be, the above specimen of Materia Medica does not give us any hope that Dr. Sharp is the man to give us that boon.

So much for the re-arrangement of an old medicine; and if this form is defective for that, what must it be for introducing a new one?

"The following substance has never, to my knowledge, been used in medicine before. I have proved it upon myself some years ago, and have prescribed it in a considerable number of cases, and generally with the greatest satisfaction. I have been anxious to introduce it to my professional brethren, but have hitherto kept it back, partly that I might attain a more settled confidence in it myself, and partly because I intended it to appear in its place in my own 'Materia Medica.' But as that undertaking is not yet completed, for, as may be supposed, it is one of great extent and labour; as life is uncertain; and as this opportunity seems to be a fitting one, I have much pleasure in presenting it in this place, under your auspices, Sir Benjamin, for to you it is indebted for this happy opportunity of revealing its admirable utility. I give it, not only as a specific itself, but as an illustration and proof of the value of experiments upon the healthy, as a method of discovering specifics in any number, and for any complaint; the limits to these discoveries being the very few physicians who are willing to try to make them, and the limited zeal, industry, and talent of mankind.

" 'TITANIUM—AS A POISON.

" 'Titanium was discovered by Gregor in 1791, but we are indebted to Wollaston's experiments, in 1822, for a better acquaintance with it. This rare metal is obtained chiefly from the bottom of the large smelting furnaces in iron works. Several years ago, when one of these furnaces at the Low Moor Iron Works, in Yorkshire, which had been burning without intermission for many years, was blown out for the purpose of undergoing repairs, through the kindness of Mr. Wickham, I obtained a considerable lump of titanium.* The metal was in beautiful cubic crystals, of a deep-red copper colour, and very brilliant metallic lustre. I had some of these crystals triturated by the late Mr. Turner, of Manchester, and experimented with this trituration upon himself.† The proportion was one grain to ninety-nine of sugar of milk. I am not aware of any other proving.

" 'From these experiments I am assured that titanium has a powerful action upon the human body. After taking the preparation I have described, in doses of two grains, once a day for a week, I became greatly disordered, and felt and looked wretchedly ill. On a careful consideration of my indisposition, I am justified in summing up the action of the drug as being upon—

" '1. The *stomach;* bringing on nausea, loss of appetite, and feeling of discomfort.

" '2. The *brain* and *nerves;* giddiness, imperfect vision, the peculiarity being that *half an object* only could be seen at once, desire to keep the eyelids closed.

---

* We believe that the most recent analyses have shewn this to be a cyanide of titanium, and not the pure metal as was formerly supposed.—[Eds.]

† This is obscure, is "himself" perhaps a misprint for "myself?"—[Eds.]

"'3. The *blood;* a perceptible derangement of the whole system, which could not, without danger, have been carried further.'

"'TITANIUM—AS A REMEDY.

"'I have found titanium a most valuable remedy for certain cases, for which no good remedy was known before. They are cases of degeneration of the blood. A time will come when, with a more refined chemistry, our knowledge of the constitution of the circulating fluid which is the life of man's body, and the changes it undergoes in disease, will be better understood than they are at present. We can now speak of the morbid conditions of the blood only in a crude and general manner. We know that the blood is altered from its healthy state in typhus, in chlorosis, in jaundice, in cholera, in inflammatory fever, and in some other diseases, and we can describe, in an imperfect manner, some of these changes, but there remains an inexhaustible field of research in this department of physiology and pathology. The morbid condition of the blood, which may be called the titanium condition, will be understood with some degree of accuracy by a careful study of the following case, which was the first in which it was given as a remedy.

"'1. *Blood disease.*—Mr. C. F—, a middle-aged and formerly stout and healthy man, seven years ago had an attack of typhus fever, recovered imperfectly, and has not been thoroughly well since; during the last five years has gradually but steadily become worse. He vomits a great deal, but not food; the matter rejected is a sour, watery phlegm; he has diarrhœa, the stools consisting of yellow, frothy, slimy matter; the secretion of the kidneys is high coloured and thick (in some other cases it has been albuminous); he spits blood, and sometimes has hæmorrhage from the bowels; he has pain in the region of the liver and kidneys, and also in the lower bowels, with much cramp; the eyes slightly jaundiced; there has been great loss of strength and flesh, and two stones (twenty-eight pounds) in weight. The tongue is not much furred, and the pulse is 80. This gentleman tells me he has had a great deal of medical advice, but as yet has derived no benefit either from medicines or from careful diet, or from change of air, having during the five years paid two or three long visits at the sea-side and also one on the Welsh mountains. This account I received on the 28th of April, 1858. I prescribed half a grain of the first trituration (one grain in a hundred) three times a day for a week, being moved to this by the vivid recollection his narrative produced in my mind of the condition I was myself falling into while proving titanium. At the end of the week he wrote to me that he was "altogether a different man;" and, without any repetition of the remedy, and without the use of any other means, in a very short time, he regained perfect health. He continued well a year; in the spring of 1859 he made himself ill by hunting too much, and some of the former symptoms showed themselves again, but they were immediately removed by the same remedy; he has continued generally well since.'"

In the above, more than half the space is occupied with preliminary remarks, and from these we learn that only one, or, if there is no misprint in the passage above, at most two individuals were experimented on, viz., himself and Mr. Turner. From this meagre proving we have three short sentences as the whole physiological action of the drug, and in them there is only one peculiar symptom—viz., hemiopia, which is not taken into account at all in the subsequent therapeutic trial. Our readers are already familiar with the provings of Hahnemann and the many admirable treatises on the subject by Helbig, Hartlaub, Rau, &c., and the provings of new medicines by Hahnemann's immediate followers, and by our American brethren, and the re-provings of several medicines, wherein, as in Watzke's *Colocynth*, the subject is profoundly examined. It would, therefore, be an insult to them were we to go through the reasons that show the utter inefficiency of the above for displaying the physiological action of a drug. We may merely notice the paragraph in which Dr. Sharp states the blood is acted on, as that is the ostensible reason for using it as a remedy. How does he know Titanium acts on the blood? And if so, in what way? How does its action on the blood, supposing it to have any, differ from that of Arnica, Iron, Natr. mur., Crocus, Pulsatilla, Sulph. acid, and, in fact, every other profound and long-working drug? And again, what reason has he to suppose Mr. C. F. laboured under a blood disease any more than any other patient with any chronic disease involving depraved nutrition? And if so, what ground is there for supposing it resembled the Titanium blood disease any more than that of common salt or any of the hundred other medicines that produce changes in the blood? In short, in what way was it a homœopathic cure at all? None, that we can see; and the cure was nothing but pure hap-hazard, and the repetition of the medicine in like cases will be pure empiricism, bearing no more resemblance to rational, specific treatment, such as homœopathy is, than Dr. Simpson's chance hits with Nickel and Cerium. We are therefore compelled, with great regret, in defence of our common cause, to repudiate entirely the above remarks on Titanium, as bearing no resemblance to a homœopathic proving, except as a mere parody of one. This is painful, but we have a duty to perform; and Dr. Sharp having the ear of the public, it is the more necessary to speak decidedly, as allowing such an imperfect representation of the matter to go unchallenged, will do infinitely more harm than all the letters of Sir B. Brodie. Dr. Sharp, at page 89, seems anxious that the allopathic party should not claim priority in the use of Titanium. We are not careful as to that; for, as above said, the field is open yet, and we cannot admit that any homœopathic title to it has been made out. So far, Dr. Sharp and Dr. Simpson are quite on a par in their trying new metals.

Dr. Sharp is most anxious to disclaim all indebtedness to Hahnemann, and he therefore seldom mentions his name without some disparaging remark. Thus he takes good care to tell us "I have noticed every feature of Hahnemann's exposition of his system, and there is not one which I admire, or can adopt in the terms in which they are propounded by him. As expressed in his writings, they all, without exception, excite in my mind a strong repugnance." And again, "I may be supposed to be a disciple of Hahnemann, and be held responsible for his follies. I altogether disclaim such responsibility and relationship." From this we infer that if Hahnemann had not existed, Dr. Sharp would have discovered homœopathy all by himself. Possibly, but as it so happened that Hahnemann preceded Dr. Sharp in the discovery, we do not see how Dr. Sharp can altogether repudiate the relationship of his disciple. However, as he goes on, Dr. Sharp endeavours more and more to discredit Hahnemann, and make him an object of contempt. We doubt if any professed opponent of homœopathy ever gave such an unfair and depreciatory account of Hahnemann's introduction of his discovery to the notice of the profession as is to be found at page 33 of Dr. Sharp's letter. According to this account, all the blame of the acrimonious controversy that arose originated with Hahnemann. It was his "irritable mind" that chafed at the delay of his brethren to adopt his views: his impatience and self-esteem "led him to press his reform with unwise eagerness; and the two together tempted him to use words of disparagement towards his fellow-practitioners, which they did not deserve, and which he was not justified in using." Hahnemann, according to Dr. Sharp, "should have been more modest and more patient."

How utterly unjust this account of Hahnemann's introduction of homœopathy is, every one at all conversant with his life and writings knows. It was not till very late in life that Hahnemann turned round upon the enemies who had been baiting him for many long years, and gave them back some of the bitter words with which they had pelted him. No one, who will look through his *Lesser Writings*, but must wonder at the moderation, modesty, and affectionate earnestness that pervades all his writings, down, at all events, to the year 1816. And yet it should be remembered, that ever since 1799 he had been an object of the most relentless persecution by those whom he sought to instruct; a persecution to which there could be no parallel now-a-days, for he was literally hunted from town to town, his practice destroyed, and himself subjected to the most vexatious legal prosecutions, carried on with a vindictiveness and constancy that would have worn out the temper and broken the spirit of a less noble nature. The very bitterest things he wrote in his declining years are but good-humoured banter compared with the vile calumnies, and mendacious accusations of his opponents.

What Dr. Sharp's object can be in thus misrepresenting the great and good old man, we are at a loss to conceive, unless it be to induce others to believe that he is noways indebted to Hahnemann for the method of practice he pursues, and that he has invented something infinitely superior to anything Hahnemann promulgated. That something like this is the case is pretty clear, from several passages. Thus, at page 88, he says, "the new treatment, as taught by me, is a doctrine of specifics." The Materia Medica of Hahnemann, which we have always hitherto regarded as the finest monument of patient industry, directed by genius, that the history of medicine gives us any record of, is, it appears, shortly to be superseded by something infinitely better, and this is his own Materia Medica, the pretensions of which we have already considered.

But a reconstruction of the Materia Medica is not the only achievement in regard to homœopathy Dr. Sharp plumes himself on; he claims, also, to have discovered a posological law. "I have," he says (page 144), "for the first time, suggested a law for the selection of the dose." If by this Dr. Sharp means that he is the first that has suggested such a law, we can only say that he is mistaken; many homœopathic writers before him have suggested laws for the dose, as any one familiar with homœopathic literature must know. Among these we need only recal the names of Rau, Stapf, Watzke, Trinks, Attomyr, Hering (whose rule for the dose has lately been revived by Dr. Hale, of America, and Dr. Madden), Black, Koch, Stens, Mure, Cruxent, and Scott.

Dr. Sharp thus formulizes his law for the selection of the dose (page 110):—

"Different doses of the same drug, given in health, select different organs on which to act injuriously.

"Corresponding, but smaller, doses of the same drug are to be given as remedies in the diseases of the organs which they select."

This differs little from the rule laid down by Hering (*N. Arch.* I. 3, 161), only the latter expressed his rule in different, and, we think, more correct terms. He said, in effect, "Different doses of the same drug, given in health, cause different symptoms. Corresponding, but smaller, doses of the same drug are to be given as remedies, according to the symptoms they produce."

Not only is this rule not new, but we have before expressed our opinion about it, and it has been, at different times, entertained and abandoned on the same grounds by many. These are, that granting it has a qualified value, yet it can have no practical existence till we have first ascertained what are large and what small homœopathic doses, for fractions serve equally for big and little doses, just as the big hole in the barn door serves for the hen and the chicken. Some, for example, call 30 small and 6 large, while others call 6 small and 1 large. In that case, No. 6 would be small to one set and large to the other. Besides, the rule is, unfortunately, by no means true universally, even in the sense intended. To give an example, we know that corrosive sublimate never excites dysentery, except in large poisonous doses; while, on the other hand, it is so completely homœopathic to that disease, that it cures even in high dilutions.

But we altogether deny the correctness of Dr. Sharp's premiss—viz., that different doses of the same drug select different organs; in fact, to assert that would be to deny the specificity of medicinal action, or make this specificity vary with every dose. We all admit the twofold action of many drugs, which, in large doses, may excite purely irritant, mechanical, or chemical action in the primæ viæ; but our doctrine of specifics is founded on the belief that where these drugs are given in doses small enough to avoid such irritant, mechanical, or chemical action, they act specifically on certain organs, the varying symptoms caused by various doses depending on the different degree such organs are acted on by these doses. Even were Dr. Sharp's idea as true as we believe it to be the reverse, we do not see how we could avail ourselves of the rule in practice, without an almost entire reconstruction of the Materia Medica, for, with respect to most of our drugs, we know nothing about the doses in which they were proved. And we may observe, incidentally, that the reconstruction needed would have to be very different from the specimen Materia Medica given by Dr. Sharp.

One other matter in Dr. Sharp's *Letter* we shall allude to. The following is the mode in which he thinks it becoming to address an allopathic colleague who may be disposed to meet him in attendance on a patient. "I am always frank; I say to my medical brother when he arrives, 'I am glad to see you; I hope we shall agree in our diagnosis and views as to the general management of the case; and, with regard to the drugs which may be required, I shall explain to you what I wish to prescribe; you will then have an excellent opportunity of witnessing and watching the results of homœopathic treatment, without the responsibility of a first trial made by yourself. I have nothing to conceal, and *you have only to act honourably, of course making no attempt to undermine the confidence of the patient or his friends during my absence.*'" We cannot understand what manner of men Dr. Sharp is in the habit of meeting, who would stand language similar to what we have italicized in this speech; but we are happy to think that we are not acquainted with any medical man so far sunk in allopathy as to submit for one moment to the insinuation it conveys. We should like to possess a photograph of the expression on the countenance of any gentleman of spirit and honour when thus addressed by Dr. Sharp.

We have felt it our duty to animadvert severely upon Dr. Sharp's *Letter*, all the more that Dr. Sharp is regarded by many as an authority in homœopathy. It is of the utmost moment, therefore, that we should protest energetically against the errors, mis-statements, and blemishes contained in what is put forth as a vindication of homœopathy by its champion against the attacks of the head of the opposite school.

Though none of the pamphlets in reply to Sir Benjamin Brodie are altogether such as we could have wished, still we have no hesitation in saying that Dr. Sharp's is the very worst of the whole. For while the others are deficient in vigour, they are perfectly innocuous, whereas, Dr. Sharp's is positively a pernicious misrepresentation of Hahnemann and homœopathy, calculated to give a totally erroneous impression of what our system is, and more fitted to inspire the reader with contempt than respect for the therapeutic system it professes to defend.

Foundation for a New Theory and Practice of Medicine. By THOMAS INMAN, M.D., London. John Churchill, 1861.

SIR JOHN FORBES' memorable article, "Homœopathy, Allopathy, and Young Physic," undoubtedly marks an epoch in the history of medicine in Great Britain. Since the time of its publication the old dogmatic doctrines and the accredited orthodox practices have fallen rapidly into disrepute, both with the profession and among the general public, and their ultimate dissolution promises to be more speedy and more thorough than could have been anticipated. No unprejudiced person can doubt that this overturn is attributable to the discussions which have arisen out of the subject of homœopathy. Not indeed that that system has been making such rapid strides in gaining converts to its positive tenets; but it has shown that diseases are more certainly and more speedily cured without the violent and perturbative measures hitherto in vogue, and hence that these are not necessary. The means employed by homœopathists being regarded by others of the profession as altogether nugatory, the results of that practice can only be referred by them to the recuperative powers inherent in the organism. This has led to a decreasing faith in the powers of the medical art and an increasing faith in the restorative powers of nature. The results of direct experiments in treating severe acute diseases by simple nursing, and abstaining entirely from active interference by drugs or depletion, have tended greatly to strengthen this growing faith and confirm the distrust. Now the great authorities when appealed to, as witness Sir B. Brodie's recent letter, speak coolly, as if they all along knew the expectant method to be the best and wisest in practice, and this we know is always the last stage of a discussion. Even the ordinary practitioner begins to discredit his ancient weapons, and the peculiar virtue of the metropolitan physician, which leads the public to esteem him more than his provincial brethren, is the well known repugnance of the former to active treatment The lancet and the mercurial are fast falling into disuse, and with the other heroic arms of former times, will soon be hung up for monuments. Medical scepticism is openly taught from our chairs of clinical medicine, and from the seat whence Dr. Henderson was deposed for his revolutionary tendencies, Dr. Bennett now utters such sentiments as these:—"At this time medicine is undergoing a great revolution, and to you, gentlemen, to the rising generation, do we look as to the agents who will accomplish it. Amidst the wreck of ancient systems and the approaching downfall of empirical practice, you will, I trust, adhere to that plan of medical education which is based on anatomy and physiology. Everything promises that before long a law of true harmony will be formed out of the discordant materials which surround us; and if *we*, your predecessors, have failed, to *you*, I trust, will belong the honour of building up a system of medicine, which, from its consistency, simplicity, and truth, may, at the same time, attract the confidence of the public, and command the respect of the scientific world."

Nothing could show more forcibly how utterly untenable the old fabric has become, than to see the best men forsaking it and preferring to wander in the desert of negation till they have discovered a new foundation for their faith. Dr. Bennett, in the passage above quoted, points to anatomy and physiology as most likely to afford such a foundation. Dr. Forbes expected it to lie in the study of the natural history of diseases, and recommended his disciples to watch the progress and termination of their patients' sufferings without disturbing their observations by any direct medical interference. Whether it has been found impossible to exact the requisite amount of self-denial from suffering humanity, or whether the natural instincts of benevolence revolted at this 'philosophic contemplation of disease and death,' we know not; but already we are presented by Dr. Inman with the "Foundation for a New Theory and Practice of Medicine."

Dr. Inman is of the old school of deductive philosophers. His views are the production of an original and clear mind, influenced by the myriad observations of a lifetime of experience rather than the results of analysis and inductive reasoning. He uses mainly an instrument greatly gone out of fashion among us for many years—namely, the discerning eye of the cultivated intellect, and he submits to its scrutiny an equally neglected object—namely, the living body viewed as a concrete whole. For the last quarter of a century we have ceased to hear the old controversies among men who strove to grapple with the subject of the entire living organism in health and disease; and we must say, that to witness again some of the ancient sympathetic grasp and deductive acuteness is refreshing.

Dr. Inman clears the ground by insisting upon an axiomatic truth or truism, that "to cure disease we must endeavour to restore the patient to health;" or, "that endeavours must be made to cure disease by restoring health; and not to restore health by curing disease." Truism as this appears at first sight to be, it will bear much thinking over; and the practical difference between the two modes of procedure we know to be immense. There is no doubt that the converse of this is the rule generally adopted in practice hitherto, and "Died Cured" has been the not unfrequent "result." Dr. Inman's rule necessitates the watchful observance of the state of the general powers of life, which all practical men know affords much more important indications than those deduced from the state of the local lesion. The prevalent metaphorical language of the schools, which speaks of medicines as "weapons," and "powerful remedies" as those whose onslaught upon disease is as energetic as that of disease upon the body, has led to the mistaken idea common alike to the mass of the profession and to the public, that disease is an entity which must be driven out of the suffering body. This great error is the parent of the crude and destructive practices which have brought the art of medicine into disrepute, and the recognition of the converse principle would of itself be a great gain in the right direction. When medicines are regarded as adjuvants, not as independent powers, a much higher estimate of their value and capabilities will be formed.

Dr. Inman is a vitalist. He maintains the existence of a vital force momentarily causing, directing, and sustaining the phenomena of organization and function. Indeed, this view is necessary to his theory that all disease depends on deterioration, and all disordered function originates in debility of the causal vital force. He evidently regards the force of life as a *presiding unity,* liable to be exhausted in the general or enfeebled in some particular direction, and thus occasioning the phenomena of general and local disease. This, we believe, is the mistaken premiss which leads to the erroneous deductions which we will by and bye point out. Dr. Inman maintains his doctrine of the concrete existence of a vital force in opposition to the view most in fashion among physiologists at the present day, which regards life as the dynamical condition of the organism, as the sum total of all the activities of all the forces at work, and which holds that there is no such thing as a vital force independent of and governing the sum of the material conditions present in the organism. In the region of physics we certainly find it convenient and more like the truth to conceive and speak of "force" as something not identical with "matter." Some prefer to call it the "dynamical condition," and others speak of it as the various "attributes of matter;" but when the quantity of matter is fixed, and the increments of dynamical condition vary, it is, to say the least of it, a much more apprehensible idea to conceive these increments of power as due to the presence of a varied quantity of another concrete something which we call force. We are certainly in the habit of cutting the knot in our physical investigations, and using the term force as applied to momentum, heat, light, magnetism, and electricity, and with great practical advantage and no disadvantage that we know of. But if a student of physics should attempt to resuscitate the Platonic notion of a concrete universal inorganic force, even with the knowledge afforded by recent observations, that all the physical forces are correlated and mutually interchangeable, we would condemn the idea as altogether hypothetical, unnecessary, and confusing. The same rule, it appears to us, should apply to our conceptions and language in discussing the dynamical phenomena of organic life. Organic affinities and cell growth, muscular irritability, neurility, sensation, perception, and will, may equally be regarded as correlatives of the physical forces. The forces which actuate, as well as the matter which constitutes, the living organism, are derived *ab extra.* Force, no more than matter, can be self-created. Our food contains the forces which uphold its constitution as proper aliment. May not heat which, in water at 212° changes into repulsive force, in the human body at 98° change into some different expression of force? May not motion equally be modified under the peculiar conditions of organic matter, and be changed into iritability, neurility, or will? Light may become sensation, perception, or intelligence. Of these changes we as yet know nothing. But these organic expressions of force must be studied, each in its speciality as they actually present themselves. Any attempt to lump them all into one, as the various phenomena of one fundamental, vital, or organic principle, is as reprehensible as the Platonic idea of an essential physical force which in physics we repudiate.

The value of this distinction will be appreciated when we come to examine the rationale of Dr. Inman's treatment of disease. Admitting his hypothesis that disease depends upon the deterioration or debility of organic force in some particular direction, we must, on the above grounds, demur to his proposition that any general stimulant of the vital powers will answer the purpose of sustaining the particular dynamic condition which is at fault. When, in dealing with the inorganic forces, we want to evoke some particular form of force, say heat, we must use the means which experience demonstrates as capable of exciting that particular force. When we want to produce light, magnetism, or electricity, we must adopt the measures suited to the peculiar case. A mechanic who wants the repulsive force of water at 212° must employ the particular forms of matter under the particular conditions which experience has demonstrated as those which will lead to the evolution of heat. To employ any force-producing combinations of matter which should be most at hand, will not suit his purpose, unless the educed force be the one he wants in the particular case. So to stimulate or increase any particular organic force, we must apply an agent which experiment on the healthy body has shown to possess the property of exciting the particular force in question. This idea of the adequateness of *general* stimulants constituted the fundamental mistake of the Brunonian system, and it reappears in all its fulness in that of Dr. Inman.

Here the copiousness of the resources of the homœopathic system presents itself in wonderful contrast to the meagreness of the other two. As is well shown by Dr. Fletcher in his *Elements of Pathology*, Hahnemann's experiments with drugs on the healthy body supply us with a special stimulant for each special, organic, or functional derangement. Hahnemann's theoretic notion of the *modus operandi* of his medicines was perhaps wrong; but his practical rules were the very ideal of what the requirements of the medical art demand. It remains for his followers to place his system on its true theoretic basis. that it may "command the respect of the scientific world and attract the confidence of the public;" and in doing so their art will acquire that clearness and precision which a true science always reflects upon its corresponding art.

Grateful for the instruction which we have received from a perusal of Dr. Inman's book, we would respectfully invite him to study further Dr. Fletcher, who, it appears to us, has gone over the same ground which he has travelled, and beyond that has cleared a path on which he may proceed much further with great satisfaction and advantage.

We are glad to find that Dr. Inman, while he entertains the highest estimate of the recuperative powers of the diseased organism, repudiates the notion of a vis medicatrix naturæ. The conservative and the reparative powers he holds to be identical with the normal organising forces of life. He thus discards the doctrine of eliminations, and draws a very clear distinction between that word and emanation, or evolution, which he considers the proper term for the phenomenon. The latter implies the simple fact of a poison, or miasm, passing off by the ordinary process of excretion of effete materials, and involves no theory. The former implies not only that a poison is passing off from the body, but that it is doing so in consequence of a definite process, which is set up by some vis medicatrix, with the distinct intention of diminishing the quantity remaining behind. By a most extraordinary misconception of the subject, for which we are at a loss to account, Dr. Inman stigmatises the homœopathic method of treatment as one based on the doctrine of elimination. Where can Dr. Inman have got the idea that homœopathists use "diaphoretics in rheumatism, aperients in cholera and diarrhœa, and rubefacients in measles and irregular gout?" After ably discussing and discarding the elimination theory, he "concludes that the homœopathic treatment of the diseases of a poison origin, is radically wrong both in principle and detail; he believes that acute rheumatism is not to be alleviated by increasing the perspiration, nor gout in one foot to be improved by inflaming a second toe; diabetes insipidus is not to be cured by diuretics, diarrhœa or dysentery by purgatives, nor vomiting by emetics; nor, if urea produces irritation of the bowels and purging, does he consider it ought to be encouraged by the use of aperients!" Can Dr. Inman ever have given the doctrines of homœopathy the smallest study or even looked into any of the works on the subject? We really do not believe that he has. At one time it is the "vulnerary powder" of medicine; again he sees in it only a sly placebo to assist the hope and faith of the patient while nature works the cure; or, again, it is condemned as the very embodiment of the pernicious practice of elimination! In the concluding summary at the end of the book we find the following categorical objections to the homœopathic system:—

1st. Because it ignores the principle of life as the chief power in the body.

2nd. Because it attributes powers to substances and to quantities which are absolutely inert.

3rd. Because it excludes "systematically" from its arsenals agents of known power in restoring power to the constitution.

4th. Because it attributes to an irrational cause effects which must be attributed to a rational one.

In giving a categorical answer to these objections, we must repeat that we are astounded to find a gentleman of Dr. Inman's integrity discussing the demerits of a system of which he can never have seen the fundamental literature. Had he once opened the pages of Hahnemann's Organon, he could never have failed to apprehend the import of such a passage as this: (§ ix.) "In the healthy condition of man, the spiritual vital force, the dynamis that animates the material body (organism) rules with unbounded sway, and retains all the parts of the organism in admirable, harmonious vital operation." Or, again, (§ x.) the "material organism, without the vital force, is capable of no sensation, no function, no self-preservation; it derives all sensation and performs all the functions of life solely by means of the immaterial being (vital force) which animates the material organism in health and disease." Again and again do we find such sentences as these (§ xii.) "It is the morbidly affected vital force alone that produces disease," (§ xi.) "When a person falls ill, it is only this spiritual, self-acting (automatic), vital force, everywhere present in the organism, that is primarily deranged by the dynamic influence upon it of a morbific agent inimical to life." Indeed, so preposterous to us, as the disciples of Hahnemann, seems the assertion that he ignored the principle of life as the chief power in the body, that we can only answer by directing Dr. Inman to his book.

With regard to the second objection, we must protest against the petitio principii on which it rests. We quote Dr. Inman's words (p. 434). "Where specifics are employed, there is no general rule by which the amount of the dose can be regulated. Each stands on its own merits, and careful empiricism alone can teach the requisite quantity;" and (p. 345), "they should rarely, if ever, be used in doses sufficient to make a sound man ill." Surely, holding these views, it would be more becoming of Dr. Inman to abstain from passing an a priori judgment on the action of the infinitessimal doses.

With regard to the third objection, we are not informed as to the names of the powerful agents systematically rejected by homœopathy. If Dr. Inman means Cod-liver oil and Glycerine, of which he entertains so exalted an opinion, we can, we think, take it upon ourselves to say that homœopathists have no objection to the use of any dietetic or hygienic adjuvants to their treatment.

We are not very sure that we comprehend the fourth objection. Does Dr. Inman mean that it is irrational to consider the restoration to health, consequent on the exhibition of a homœopathic medicine, as the effect of the action of the medicine, because, in his estimation, the only rational cause of restored health is the reparative vital force? We fear we must give this enigma up, as Dr. Inman does not otherwise appear to us so alarmingly egotistical as this interpretation of it would imply.

In his preface, Dr. Inman repels the aspersion that he has any sympathy with the doctrines of Hahnemann; we conscientiously believe him, since he does not seem to have the most remote notion of what they really are. But this we can tell him, and all who are of his way of thinking, and who may be similarly uninformed in this respect, that the sooner they devote some attention to them, the sooner they will find the true "Foundation of the Theory and Art of Medicine."

The Science and Art, or the Principles and Practice of Medicine. Vol. I., Parts 1 to 4, by DR. PETERS; Part 5, by DRS. PETERS and SNELLING. Radde, New York.

IT has all along been felt that the progress of homœopathy was retarded not only by the incompleteness of the resources at our command as homœopathists, but also from the difficulty of access to these resources. Not long ago almost no one could attempt homœopathy who was not familiar with the German language, and then as that was gradually remedied by translations, these resources were so scattered, that the want of a standard collective manual of practice became seriously felt. In supplying both these wants our American brethren have been foremost, and lay all English speaking lands under a debt of gratitude to them. The present work we are glad to bring to the notice of our readers as one calculated to supply the want of a compendium of homœopathic practice so much felt by the busy practitioner. The subject of homœopathic therapeutics systematized is a very large one, and much may be said on it, but it is obvious that this ultimate aim will be attained, if we can by any plan place before the readers a collection of all that is known on the subject. The rest becomes a mere matter of arrangement. The best may not be found at first, but if any of the plans generally understood and followed in the ordinary works on practice of physic is taken, and the homœopathic experience up to the day arranged according to it, the main purpose will be served. This is in the main what is done in the work before us. We have first an interesting summary of the history of medicine, concluding with the life and times of Hahnemann. This last, and that of John Brown, are naturally most interesting, and rendered more so by the manner in which Dr. Peters continually keeps us in mind of the relation they bore to each other, and to the other notable men both in and out of medicine in this epoch, at each stage of their life. We may express our regret here that the author does not appear to have read *Fletcher's Physiology* or *Pathology,* in spite of the numerous opportunities we have taken to press these works on the attention of homœopathists, otherwise he would not have missed, as he has done, the point of the intimate connection between the two great discoverers. In fact, the whole theory of Hahnemann may be termed nothing but the corollary of that of John Brown. For while the Brunonian doctrine of the cure of indirect debility by stimulants is unimpeachable in the main, yet it fails in particular instances from disregard of the *special* character of the stimulus in both causing and curing the particular disease. Here Hahnemann steps in and supplies the "missing link," and it now becomes clear not only how a stimulus can cure an inflammation that it could cause, but also why it is that it is not *any* stimulus but only one of a *special character* that will do so; and it is not difficult to see also that the character must be very similar to that of the stimulus which in other circumstances would produce the inflammation. Hence follows the proving of medicines on the healthy body as the basis of our Materia Medica.

The historical department occupies Part 1 and about a third of Part 2. Then the author enters more specially on the task before him. The plan now followed is, as above said, pretty much the ingrafting of homœopathic experience on a selection of the best results of modern medicine. For instance, the 1st section treats of "Medicine as a Science and as an Art; its objects and extent," taken mainly from *Aitken's Handbook* on that subject, a work with which we are unacquainted, but which seems to be valuable; at any rate, this section is good, and forms a good foundation to work on. The 2nd section is on "Morbid Anatomy and Pathological Histology, and the means and instruments by which the nature of diseases are [is] investigated." This shows a wide and well-grounded acquaintance with the subject down to the most modern times, and begins to touch on the place occupied, or rather to be ultimately occupied, by homœopathy in general medicine. Likewise, the true position of the above departments of science in practical medicine is well set forth. At page 133 we read :—

"We are not to suppose that, because the stethoscope enables us to detect a mitral murmur or a crepitation in a lung, we are justified at once in adopting one, and only one, method of treatment. It is this exclusive use of instruments to the disregard of general symptoms and the signs of disease, derived from close observation and knowledge of the living functions, which leads to the repudiation of the use of such instruments by the sagacious and experienced physician, who sees the numerous errors committed by his younger brethren trusting too exclusively to these instruments in the diagnosis of disease. Like the stethoscope, the microscope has been unjustly and unnecessarily burdened with labour, and has been equally unjustly blamed when it has failed to elucidate the nature of a morbid state. * * * It is only from the *combined* and *appropriate* use [of the various means of physical diagnosis], with the general signs and symptoms, that our knowledge of the nature of diseases will be advanced."

Section 3, "A Review of the late Reforms in Pathology and Therapeutics." In this chapter a therapeutic system like homœopathy is, as we naturally expect, called upon to vindicate its true position in medicine. From the antecedents of our author Dr. Peters, it receives, as we would expect, a high and dominant position in therapeutics, but not an exclusive one. Here we may be permitted to make a few remarks. How far can we say that any one of our body is able to define what will be the ultimate place of homœopathy in the art of medicine? Is not a certain amount of zeal and enthusiasm needful for the very existence and early development of a new doctrine, and how far is the idea of exclusiveness and partizanship necessary to maintain that zeal? Doubtless, in the long run, the practice of medicine, improved and purified by homœopathy, will have to be carried on by the ordinary run of medical practitioners who have neither zeal nor enthusiasm for the particular doctrine, and such men will certainly not advance the art of medicine through that doctrine. Thus the tendency is to become stationary on the cessation of opposition and persecution of any new truth. Is the time then come for the high and abstract treatment of the part homœopathy is to play ultimately in general medicine? Hardly as yet, we think, in regard to its own development; but the propriety of discussing the subject in an eclectic spirit in a practical work depends wholly on the man. Dr. Peters has now for many years given evidence of love of and faith in the homœopathic doctrine by his immense and untiring labour in the materia medica and other practical, as well as theoretical, departments. From him, therefore, we can receive instruction in disquisitions in an eclectic spirit without fear of degeneration into a cold and lifeless indifference In an unknown man it would be far otherwise: from him it would be taken as the impertinent conceit of a new fledged half convert affecting to patronize Hahnemann, by allowing his method a certain amount of truth in some cases. The fact is, strictly speaking, we are all eclectics, and we differ only in degree. Therefore, it is impossible to judge in this matter with any approach to correctness without knowing a man's practice almost to minute detail, for the same profession of faith will of course cover a very wide difference of practice. Since the subject of auxiliaries was discussed some years ago, we have not been able to find one practitioner, however loud his profession of pure Hahnemannism was, who did not occasionally use other than homœopathic means of cure, such as common sense dictates in certain instances. To be sure these are few and exceptional. But when one is writing a systematic treatise on general medicine, those few exceptional cases loom very large, while there is no proof that the author makes them a bit less exceptional in his practice than the so-called purist who ignores them in his professions. So we think, without alarming the faith of the most timid, or raising the ill-omened cry of heresy, we may follow Dr. Peters in the free discussion of the subject. It is so far pleasant to see that modern physiology and pathology, whatever they may do for homœopathy, at least entirely explode allopathy as a creed; and it is remarkable that the earliest converts to homœopathy in the old medical schools were professors of physiology and pathology. In fact, of the medley that passes current as the ordinary practice of medicine, the greater part of what stands the test is nothing but unconscious homœopathy.

In Dr. Peters's critical remarks on the application of *similia* *similibus*, we observe, in the first place, that they are all within the field of the specific action of medicines. This is already a great step as applied to allopathy as well as homœopathy, and involves, as a part of general scientific medicine, the proving of medicines on the healthy, ~~and~~ the use of one medicine at a time, little as the mass of allopaths are prepared for that as an established truth. Then, having admitted the specific properties of all drugs, and supposing them proved, and their effects written down correctly, how are we to use them? That is the question! At p. 155, we read:—

> "As we may have three or more remedies acting equally specifically upon a certain locality, and yet acting, the one similarly, the other differently, and the third oppositely to the action of a given disease of that locality, so we may have three varieties of specific treatment—1st. The *specific antipathic* or *specific antagonistic* treatment, *i. e.*, the exhibition of such medicines or remedies as act by preference upon the locality of the disease, and quite or nearly oppositely to the action of the disease. 2nd. *Specific allopathic*, i.e., *specific alternative* treatment, consisting in the use of such remedies as act by preference upon the seat of the disease to be cured, and specifically different from, *i. e.*, neither exactly opposite, nor yet identical or similar to the action of the disease. And 3rd. *Specific homœopathic* treatment, characterized by the use of such medicines as act by preference upon the seat of the disease, and similar to, yet somewhat different from the action of the disease."

As an example of *specific antipathic* treatment, he cites the use of Secale in atony of the uterus, whereby life may be saved in tardy labours and uterine hæmorrhages. "Hence," says Dr. P., "I agree with Rau that 'antipathic treatment should not be rejected generally, as has been done by some vehement advocates of the homœopathic system; peaceful, impartial, and experienced physicians will keep aloof from that blind zeal which denies that happy results have been, and will be again obtained by antagonistic or antipathic treatment.'" Precisely so, we quite agree with both in the above, but this is nothing more than what has already been discussed by British homœopathists in the controversy about auxiliaries. It differs in no way from the use of an occasional purgative or narcotic, to meet temporary states to which the homœopathic action of medicines is ***not applicable.*** We are obliged to use the primary antipathic action of the drug, careless of the subsequent action, because the state to be acted on is not idiopathic, nor the object of ultimate cure; we only require to tide over a temporary emergency. But if it were a question of the cure of chronic atony of the uterus, or large intestines, or the capillaries of the brain inducing watchfulness, we should most certainly fall back upon the proper homœopathic remedies. As physicians who are masters of their art, we must be so far eclectic as to give our patients the benefit of those means *when necessary;* but we require to keep a strict watch on ourselves to avoid the temptation of using them, to escape the trouble of finding the homœopathic remedy.

As regards the specific homœopathic treatment, we need not dwell on that. But it is in discussing the " specific allopathic or specific alterative" treatment that we must enter more closely into the theory of the whole matter.

" This method," says Dr. P., p. 161, " is oftentimes more difficult of application than the antipathic, for, though it may suffice at times merely to select a remedy which acts specifically on the locality of the disease, and specifically different from the action of the disease, yet at other times, disease is such a strange compound, or hybrid of injurious processes and salutary re-actions, that we are forced to select a remedy, which not only acts specifically upon the seat of the disease, but specifically different from the injurious, and specifically similar to the salutary tendencies, or termination of the disease. * * The true curative indication (in pneumonia for instance) is to select a remedy which acts differently from the first or progressive stage, and similarly to the second or retrograding and curative process. As the inflammation is eminently plastic, fibrinous, and adhesive in its nature, we should, according to the specific alterative method, avoid medicines like the Nitrate of silver, which excite adhesive inflammation; and may select Tartar emetic, which causes purulent or suppurative inflammation, or Hydriodate of potash, which excites mucous inflammation, or Cantharides, which excite serous inflammation; for nature cures pneumonia, by substituting a serous, mucous, or purulent inflammation in the place of the original plastic and fibrinous one. Finally, when the inflammation has subsided and a mere blennorrhœa remains, the expectorant blennorrhœagogues—such as Phosphor., Senega, Sambucus, &c.—which are powerless in the first stage may complete the cure. *** Again, there are numerous varieties of inflammation, viz., the plastic, adhesive, or so-called fibrinous, the ulcerative, the purulent or suppurative, the mucous, serous, rheumatic, erysipelatous, &c. Now, if ulcerative inflammation were committing its ravages, this mode would render it proper and advisable to give remedies which excite adhesive inflammation; if suppurative inflammation were progressing, we would be required to give remedies which excite mucous inflammation, and this has been done successfully."

Here we have an example of the way one becomes lost in the labyrinths of therapeutics when once the clue of Ariadne, given us by Hahnemann, is let go. Nearly all the propositions here brought forward are already familiar to homœopathists, as difficulties in the proper application of the homœopathic law, the degree of homœopathicity that will suffice for cures, and so forth, but hitherto we have not recognised them as a positive method, nor admitted the existence of a positive specific allopathic or alterative method at all. On the contrary, allopathy is and, we think, ought to be looked on as a mere collective title of all the various modes of treatment not homœopathic, and has no pretensions to a place among the definite curative modes of specifics. Some pages before, Dr. P., in treating of this explanation of homœopathic action, says, that the very definition *similia similibus* implies some differences from the disease, in as much as it must not be identical. Then comes the question—How much difference? Can we not extend the difference half way, or further towards the opposite, or indeed the whole way, so that in reality, while the specific acts indeed upon the part, may it not, while curing, act antipathically? And he is very much inclined to answer in the affirmative. In arguing the question, he brings in Hahnemann's illustration of the frozen limb being restored by snow, and observes quite correctly, that the action of the snow in this case is not by applying cold, but simply a less degree of heat, and is therefore antipathic. This illustration we have always felt to be an unhappy one, and one that gives rise to much misconception. But we do not see how the question can be made clear, unless we have some theory of the real nature of homœopathic cures. This appears to us to be met by none but the adaptation of the Brunonian theory by Dr. Fletcher, already often alluded to by us. The explanation is this, viz., that the primary action of stimuli, and therefore of all specifics, as well as of other positive agents, is in reality twofold; and in all organic diseases, such as inflammation and its congeners, fevers, increased secretion, &c.—consists in, first, a stage of excitement, with constriction of the capillary vessels, followed by indirect debility with dilatation of the capillaries, and increased secretion according to its kind. When the homœopathic cure takes place, the disease is in the stage of indirect debility, and the medicine exerts upon it its action, viz., that of a stimulus, and thus the cure takes place by *antipathic* action. But this must not be confounded at all with that action in the sense of the allopathists, for it does not refer with them to this view of the ultimate nature of the action of medicine, but to its broad meaning as primary and secondary on the healthy body. It is precisely these that Dr. Peters does confound, and hence his difficulty. The broad meaning of a purgative is that it increases the evacuation in its first action, followed by a diminution afterwards; and if used to check increased evacuations, that is a homœopathic use in its plain meaning, as regards the primary physiological action of the drug, whether the mechanism of increased secretion be a double process or not. We thus dispose of any argument from difference as tending towards a antipathic theory of the action of specifics, and we reduce the question to its old limits, viz., that the more the action of the drug resembles that of the disease-producing cause, the more completely curative it is. We thus also bring all other specific actions on the affected part to an inclined plane of degrees of homœopathicity, less and less curative till we get to the opposite, or really antipathic. Now, we are not disposed to admit the possibility of any specific allopathic cure at all. In fact, we positively deny it; and if we do admit the use of antipathic remedies for exceptional employment in our practice, it is certainly not for the specific cure of idiopathic affections of the part acted on, but for different purposes entirely. By pursuing the argument we shall perceive that the ingenious theory of the action of alteratives as allopathic in a positive sense has no real foundation, and alteratives, in so far as they are specifically curative, are nothing more than homœopathic remedies in different degrees of homœopathicity. For instance, if we are to cure a plastic inflammation of the lung by exciting a suppurative, mucous, or serous one, will Dr. P. tell us which we are to choose? and will he also have the kindness to tell us how we are to bring about such inflammation, without giving the enormous doses that are necessary to effect that process; likewise, how are we to get over the uncertainty of their doing so, that attends the action of specifics on the healthy body, for we know that it is only in a comparatively small per-centage of provers that the specific effects are manifested; therefore, will he also assert that in disease the susceptibility to the action of an allopathic specific is exalted in the same way as for a homœopathic one? Then, supposing all these difficulties got over, will he tell us on what ground he supposes that the supervention of an erysipelatous inflammation in any part will cure a plastic one, and will not simply aggravate it and hinder the cure? We know of no ground, and if the fact be true, it is still to be demonstrated, for we are inclined to think the presumption is the other way, and we have examples of dissimilar diseases merely suspending, or even complicating each other, and by no means removing each other. That, in fact, when the latter effect takes place at all, it is only when they approach to the required degree of homœopathicity. In fine, the real fact of the matter we apprehend is simply this, that the degree of homœopathicity that suffices for cure is not accurately fixed, and as we recede from complete homœopathicity, a certain margin is left within which specifics given in more massive doses may still have curative effects. This margin may, no doubt, contain the specifickers and Rademacherians and Trousseauist substitutivists. But beyond that we protest against allowing any such method as an allopathic alterative one any positive existence at all. We think it is imperative on us to keep fast hold on the great discovery of

Hahnemann, viz., the positive homœopathic law of specifics, and beware of letting that down and diluting and refining it away by giving it only a place as one of a sliding scale of specific actions, all on pretty much the same footing. No! if we are compelled, as a matter of fact, to admit that there are other actions of medicine which we must on exceptional occasions make use of, such as the antipathic or revulsive, let us say so plainly, and not attempt to shade them off into the homœopathic. And finally, if there are any curative actions within the limits of the specific action of drugs on the affected part that we cannot as yet distinctly bring within the homœopathic principle, let us acknowledge the fact as an empirical and as yet unexplained one, and not prematurely erect it into a principle to be placed more or less on a par with a well ascertained one of paramount importance, such as the homœopathic. Just as in chemical analysis of organic substances, a considerable per-centage appears as "extractive," a provisional term which the progress of science will often show to have covered various definite principles till then undiscovered.

At page 169 Dr. Peters enters, we may say, on the special business of the book by taking a standard semiotic list; in this case, Bennett's examination of the patient, which he there comments on paragraph by paragraph, giving the homœopathic analogies of the symptoms therein mentioned, both in their physiological and clinical aspects. This is a very good plan, and a very useful chapter on it gives the practitioner at once a knowledge of the salient points of the action of our medicines, and gives a ready resource in our minds for the most prominent and common symptoms that occur in disease. But it illustrates the difficulties of making a homœopathic practice of physic, for the author must perpetually descend into details so completely as to unite the whole book in this chapter, or run the risk of inculcating a purely symptomatic treatment such as the allopathic generally is. This is well illustrated by the remarks on Veratrum viride, whose action in controlling the quickness of the pulse has lately become known, and is extensively used by allopaths for that purpose in inflammations. Dr. P. properly cautions the homœopathic practitioner against trusting to it without considering "it may not be the true specific remedy against true plastic inflammation, but merely against vascular irritation, congestion and activity." On the whole this is an excellent chapter. At section 6 he enters on the special treatment of disease, and commences with choosing a system of classification. He adopts Dr. Farr's, which is likely to become general and international.

Our limits prevent us continuing our remarks on this interesting work at present, but we hope to recur to it on a future occasion.

Remarks on the Narrow Limits of so-called Rational Medicine. By J. STEVENSON BUSHNAN, M.D., &c. &c. London: Churchill. 1861.

DR. BUSHNAN is known to homœopathists as the writer of an elaborate work adverse to the homœopathic system, which, unlike the generality of our opponents, he took the trouble to study in the writings of Hahnemann and some of his disciples.* We gave him credit for his studies while objecting to the mode he adopted of criticising the homœopathic system, which he condemned because he found certain weak points in Hahnemann's writings that could not stand the test of a severe logic. We noticed with approbation that Dr. Bushnan with a certain degree of candour admitted the homœopathic principle to a certain extent, and we expressed our opinion that his real estimate of our system was more favourable than appeared in his work. Whether we were right in this supposition or not we have no means of knowing, but since his great work against homœopathy, Dr. Bushnan does not certainly seem to have gained any increased respect for old-school physic, if we may judge by the pamphlet before us.

"The narrow limits of so-called Rational Medicine." Oh! Dr. T. K. Chambers, what do you think of such a title? In your *True Art of Healing,* which we reviewed in our 15th vol., you arrogated for the ordinary pilling, potioning, blistering, and bleeding method the title of "Rational Medicine," and here is a great authority of your own school actually discoursing about the "narrow limits" of that Rational Medicine of which you are a champion. And more than all, he applies to Rational Medicine the contemptuous expletive, "so-called," (or *soi-disant*,* as you would say) as though he somewhat doubted if it deserved the appellation. But we must leave the doctors to fight it out between them as to the limits and the rationality of the medicine they profess. Let us see what Dr. Bushnan says upon the subject.

---

* Vide vol. x. p. 455 Review of *Bushnan's Homœopathy and the Homœopaths.*

Premising that by "medicine," he means the "cure of disease," he asks, "from which of the numerous branches of knowledge subservient to medicine are we to draw the rules or principles and means or remedial agents by which the cure is to be set on foot?" Nor is this altogether an impertinent question; for at various times the cultivators of different auxiliary sciences, such as physiology, pathology, and chemistry, have tried to persuade us that in their province we are to seek the rules and principles to guide us to the cure of disease. But, as Dr. Bushnan justly observes, it is from the science of therapeutics that we derive our principles and our remedial means. "The certainty of curing a disease," he says, "after that disease has been ascertained, is in proportion as it depends upon some acknowledged rule or principle in the science of therapeutics." But, he further asserts, "there are no principles concerned in any part of the treatment of disease having anything at all approaching the certainty of the principles in physics. The so-called principles of medicine, have, at the utmost, the force of moral certainty."

"It may," he writes, "be urged on behalf of the claim of medicine to be essentially rational, or a true science, that hardly anything can have more of the character of a principle than the effect of certain substances to cause vomiting, certain other substances to cause purging, certain other substances to cause sweating, and so forth. It is not to be denied that the known effect of such substances to act with much certainty in these several respective modes, constitutes a most important series of principles. *But these principles are but remotely concerned in the great object of medicine, which is not merely to cause vomiting, or purging, or sweating, but to cure disease.* For it unfortunately happens that when such more immediate principles are laid down as that emetics cure such and such diseases, purgatives such and such other diseases, and sudorifics various additional diseases, the rule or principle is found to go but a very short way, and, *under every variety of circumstances, to prove an entire failure.*"

---

* See Review of Dr. Chambers's *True Art*, vol. xv. p. 492.

He then says that specifics may seem to belong to Rational Medicine; but admitting this to be the case, no great addition is thereby made to its extent. "In so far as such an order of remedies can exist, it cannot be established on any general principles supplied by physiology or pathology." But, at the same time, he allows that they may with equal justice be held to belong to *empirical* medicine. It is only "by courtesy" that a specific can be regarded as belonging to rational medicine. But some of the old specifics are taken from empirical and transferred to rational medicine in this way: Bark, for example, possesses the property of curing diseases exhibiting an intermittent type; hence it is to be placed along with arsenic, sulphate of bebeerine, and some others in the new order of antiperiodics—and thus it comes to belong to rational medicine. That is to say, bark given to cure ague because it had been known to cure ague before, is empirical medicine, but bark given to cure ague in virtue of its antiperiodic character, is rational medicine. Then may rational medicine fairly claim for a partisan, Molière's distinguished "Bachelierus," who, when asked, "quare opium facit dormire?" replied, "quia est in eo virtus dormitiva." So, likewise, rational medicine, if asked why bark cures an intermittent disease, would, *teste* Dr. Bushnan, rationally reply "quia est in eo virtus antiperiodica." And this is rational medicine! We are glad to learn from Dr. Bushnan that it is so, for we could never have discovered the rationality of it by our own unaided powers. We should have rather thought that to transfer bark from the class of empirical specifics to this new order of antiperiodics was to change merely its name without making it a bit more of a rational remedy; that is, a remedy prescribed according to a distinct and acknowledged therapeutic principle or law. Does not Dr. Bushnan perceive that the question to be solved with regard to remedies in order to bring them under rational medicine is, what quality in the drug itself is there to guide us to its successful administration in disease? If this question be answered, these remedies at once fall into the domain of rational medicine, but to say of a medicine that it cures, for example, a periodic disease because it possesses an antiperiodic power, is an empirical formula of the very crudest description. Nor is Dr. Bushnan's instance of rational medicine in respect to mercury curing syphilis, a bit more successful, when he suggests that it may be because it "has the property of destroying the poison by which the disease is generated and maintained;" for he cannot bring forward the shadow of a proof that it acts in this way, and even if he could prove this to be the case, the administration of mercury in syphilis would not be the less empirical, and the reply to the question, "why does it cure syphilis?" would only be "quia est in eo virtus antisyphilitica."

"The narrow limits of rational medicine" indeed! why Dr. Bushnan shows conclusively by his own reasoning that there is no such thing as rational medicine in the school to which he belongs; for he limits its rationality to the specifics it contains, and it is evident from what we have just stated, that its specifics are prescribed purely empirically.

In order to enlarge the field of rational medicine, Dr. Bushnan looks to the increase of the number of specifics. "It is not impossible," he says, "that further exact investigation by minute experience of the properties of such agents may re-establish an order of specifics on a far larger scale than that which has just been overthrown." No doubt—but the mode of conducting the investigation proposed by Dr. Bushnan, viz., "exclusively under the guidance of experience at the bed-side of the patient," has been tried in vain for 3000 years, with the only result of discovering 3 or 4 substances which were long held to be specifics, but whose claim to that character has been strongly contested of late years.

As this method, to wit: clinical experience, patronised and recommended by Dr. Bushnan, has been so long pursued with such miserable negative results, as Dr. Bushnan himself shows, might it not just be advisable to try another method, that namely, recommended by Haller, and pursued so successfully by Hahnemann, the proving of drugs on the healthy body, just to see if possibly a better result could not be obtained in the way of the discovery of specifics? A worse certainly could not occur; and we can safely promise Dr. Bushnan that if he will but pursue the physiological method of Hahnemann his pains will be rewarded by the immeasurable extension of the domain of Rational Medicine. We would strongly advise him to peruse attentively Hahnemann's essay, entitled "*Examination of the Sources of the common Materia Medica*" (*Lesser Writings*, p. 748) where he will find a true estimate of the nature of the source he relies on for obtaining specifics, viz., clinical experience. With a masterly and irresistible logic that has never been surpassed, Hahnemann shows that this source is nothing but crude empiricism, and that though it has been in vogue from the earliest days of medicine, it has never yet given us a single reliable specific. A careful study of this and of some others of Hahnemann's earlier essays would, we are sure, disabuse Dr. Bushnan entirely of the idea that by his method rational medicine can be advanced a step, and would show him that the only scientific method for discovering specifics and thus advancing rational medicine in the way pointed out by Bacon, Sydenham, and himself, is Hahnemann's plan of physiological experimentation with drugs on the healthy individual.

We cannot conclude without quoting Dr. Bushnan's description of some heroes of his own school, who, we imagine, are not fully aware of the "narrow limits of Rational Medicine." "There are some men too blind to see the mischief they produce. Their coarse perception of diseases confounds all nice distinctions. They have one remedy for every one of their so-called diseases. It never fails in their hands, for they are as blind to the cause of death as to the nice distinctions of diseases. They blunder on, content if their remedy, whatever it be, produces a sensible effect;—purges, if it be purgative; affects the amount of urine if it be a diuretic—but are never able to see if what they are doing conduces to the safety of the patient. He must go through their ordeal. If he be strong, he survives—if he be weak, the grave tells no tales."

MISCELLANEOUS.

THE NEW SYDENHAM SOCIETY'S YEAR-BOOK OF MEDICINE AND THE ALLIED SCIENCES FOR 1861.

HISTORY has been described to be "an old Almanack," and medical history equally deserves this definition. Here we have the *Medical Almanack* for 1860; let us see if we can extract from it any useful or instructive facts. While skimming over its pages we shall look out for any little facts or opinions that may be interesting to the homœopathist, and, "when found, make a note of them."

Making Believe to give Physic.

The first part of the work is a "Report on the Institutes of Medicine, by Dr. G. Harley." Page 59.—"Bodington believes that the possibility of giving large doses of *Opium* in cases of delirium tremens not only with impunity, but even with advantage, arises from the circumstance that alcohol has, to a certain extent, the power of controlling the physiological effects of *Opium*. Hence it is that, when the system is, so to speak, saturated with alcohol, *Opium* becomes comparatively innocuous." He considers the modern salts the most dangerous form in which *Opium* can be given. "The native *Opium* contains constituent ingredients of a contrary character, which are counteractive of each other. *Laudanum*, holding all these in solution, is the safest form, inasmuch as the alcohol, the solvent, in some measure acts as an antidote." It does not appear manifest why it should be advisable or necessary to give an antidote along with our remedy; for apparently the remedial effects would be annihilated by such a proceeding. Perhaps the perfection of allopathic treatment consists in giving nominally powerful drugs, which shall actually produce no effect, and if so, then we can see the wisdom of Dr. Bodington's remarks. In fact, such has been the plan unconsciously adopted by the allopaths with regard to some other violent medicines, for Dr. Garrod, in 1857, proved that the properties of *Hyoscyamus*, *Stramonium*, and *Belladonna*, were completely destroyed by the admixture of potash, and the favourite mode of administering these drugs was precisely mixed with the alkali, so that all along the allopaths had been prescribing under the names of these substances perfectly inert medicines. However, we don't believe Dr. Bodington's statement, that the various ingredients in *Opium* are counteractive of each other, nor that the alcohol in *Tinct. opii.* is antidotal. We believe this however, that the salts of *Opium*, given singly, have a very different action from *Opium* unmutilated, and we believe a great mistake is committed, and many accidents occasioned by the administration of these salts instead of *Opium*, in cases where perhaps the latter would have been useful.

Rationale of Action of Belladonna and Opium.

Page 60.—Dr. Richard Hughes (surely the editor does not know that he is a homœopath) has some interesting remarks on the cause of the effects produced by *Belladonna*, especially the dryness of throat and dysphagia, which he believes to depend on its depressing influence on the pneumogastric nerve. In proof of his assertion, he says, that hooping-cough, asthma and obstinate vomiting, spasmodic affections depending on irritation of the pneumogastric, are controlled by *Belladonna* ; also, that Valentin found contraction of the trachea and bronchial tubes follow galvanization of the pneumogastric—while on the other hand, these tubes were found lax, and refused to contract under the strongest stimuli, in animals poisoned by *Bell.* and *Stram.* In another paper he inquires why *Opium* contracts and *Belladonna* dilates the pupil; and he comes to the conclusion that *Opium* contracts the pupil by depressing the sympathetic nerve, and that *Bell.* dilates the pupil by exciting the sympathetic nerve.

Appreciation of Pathological Anatomy.

Page 63.—J. Bernard thinks that "morbid anatomy cannot be considered as the key to all the phenomena of disease, for it explains nothing beyond the mere mechanical causes of death." It is refreshing to meet with this bit of common sense, after all the nonsense that has been talked about the superlative value of pathological anatomy—that it alone could teach us how to know, and how to cure disease ; an enthusiastic morbid anatomist even going so far as to say, that the main object of the physician should be to "verify his diagnosis"—which means, cut up his patient on the dissecting-table.

Useless Information.

Page 64.—The observations of Eulenburg and Ehrenhaus on the action of *Digitalis* on the extirpated heart, need not detain us ; we are more interested in its action on the heart while that organ still remains in the body. Nor are Dr. Harvey's learned reflections on the mode of death produced by *Aconite* of much interest; we would rather hear about its power to prolong life.

Muscular Poisons.

Page 65.—Cl. Bernard has some interesting observations on poisons that act on the muscular tissue, directly abolishing its contractility. In this class are *Digitalis*, *Veratrum*, *Upas antiar*, and two other substances known by the Indian names of *Carrowal* and *Wao.*

Doctors Differ.

Page 17.—MM. Martin Magron and Buisson have come to the conclusion that *Woorara* and *Strychnine* act upon the sensitive nerves in precisely the same manner, consequently that the one cannot antidote the other. On the other hand, M. Vella relates several experiments, showing that *Woorara* neutralizes the effect of a poisonous dose of *Strychnine*, whose true physiological antidote he therefore considers it to be. Who shall decide when doctors disagree?

Action of Santonine, Pathogenetic and Therapeutic.

Page 71.—A. de Martini corroborates the fact, long known to homœopathists with regard to its source *Cina*, that *santonine*, taken internally, causes the majority of persons to see every thing tinged green—some, however, he says, have the field of vision blue, and a smaller number see things straw-yellow. He gives the following cases where it did good. A woman, aged 70, who saw things very indistinctly with the left eye, got 4—8 grs. of *Santonine* daily, and her vision was thereby much improved, though the medicine made every thing appear yellow. A case of amaurosis was benefited; and another, who had lost the right eye, and saw almost nothing with the left, after 10 grs. for a week, was able to read words written in large characters on the wall. Guépin administered *Santonine* to upwards of seventy patients, and found that (1) as a general rule, the urine becomes coloured soon after the derangement of vision has passed away. (2) In some patients the urine continues coloured even after the derangement of vision has passed away. (3) In those patients affected with atrophy of the arteries of the retina, as well as in those suffering from subacute choroiditis, with absorption of pigment, the yellow coloration of vision is not observed. (4) In certain of the latter cases, objects, on the contrary, appear whitish. (5) In almost all the cases of cured acute choroiditis, with the exudation more or less coloured, *Santonine* improved the vision. (6) In these cases it generally caused headache. (7) In patients who have formerly suffered from iritis, simple or with choroiditis and exudation, *Santonine* is usually beneficial; the powers of vision increase, without, however, the exudation diminishing. (8) In some cases it causes slight inclination to vomit. (9) In certain ~~diseases of the~~ eye (not mentioned) it is hurtful.

Video meliora proboque, deteriora sequor.

Page 140.—Dr. Croskery contrasts the treatment of an epidemic of yellow fever which he witnessed, as carried out at the convict establishment, and in the Naval Hospital in the West Indies. At the former the mortality was twenty per cent., at the latter only three. The treatment in the former consisted in a warm bath, emetic, purgative dose of Calomel, followed by Calomel, gr. ij., Opii ¼ gr. 2 dis horis, till slight salivation occurred. Stimulants are given when the strength begins to fail. At the Naval Hospital no Calomel or Opium are given, but an ordinary diaphoretic and diuretic mixture with Chlorate of potash. And in the face of these results, Dr. Croskery recommends for yellow fever a treatment in which Calomel and Opium play a conspicuous part, and from which Chlorate of potash is absent. Possibly, he considers 20 per cent. a more legitimate mortality in yellow fever than 3 per cent., or perhaps his practice lay chiefly among the convicts, among whom the larger per centage of mortality was desirable, on patriotic and economical grounds. No doubt, for the Naval Hospital, Dr. Croskery would recommend, on similar grounds, the treatment that caused the smaller mortality.

Advocacy of Bloodshed by an American.

Page 142.—Dr. Lawson, from the other side of the Atlantic, inveighs against the abandonment of blood-letting in pneumonia by so many physicians on this side. He asserts that bleeding and Antimony are much more successful than the expectant system; but as the statistics are all against this view, he says, that the statistics of pneumonia are utterly worthless and unreliable. This sweeping condemnation of the statistics of his own school by an allopathic authority, may reconcile us to the similar condemnation of the statistics of our school by our opponents. It is a good specimen of the style of argument adopted by a medical man when the facts are inconveniently opposed to his theories.

Grease and Cow-pox Identical.

Jenner's opinion, if we remember right, was that cow-pox had its origin in the disease called grease to which horses are liable. Dr. Fontan (p. 146) relates, that some mares being affected with grease, the matter from the pustules was inoculated on the teat of a cow, where it produced several fine pustules. From these about thirty infants were vaccinated, and in all the result was satisfactory.

What is one Man's Poison is another Man's Meat.

Page 146.—Ricord states, that *Pot. iod.* not only causes the rapid disappearance of the symptoms for which it is prescribed, but also greatly improves the general health. The globules of the blood are increased, the strength restored, and the weight augmented.

A Valuable Remedy for an Expectant Practitioner.

Page 147.—Dr. Sigmund, after a careful trial of the best Sarsaparilla, has come to the conclusion that it does not exercise the slightest perceptible influence on the course and termination of syphilitic disease. What says old Dr. Jacob Townsend?

Syphilisation.

Page 148.—Lindwurm thinks it may be applicable to cases in which *Merc.* and *Iod.* are not tolerated, or fail to cure. But he believes that the same results may be obtained by exutories of any kind. Hebra says, that under syphilisation the general health improves, and all the subjective and objective phenomena of syphilis gradually disappear during the continued inoculation. He thinks, however, that the disease is more rapidly cured by mercurials.

Mercurial Disease.

Page 148.—Keller thinks it can no longer be doubted that the so-called syphilitic ulcers in the extremities, which are characterized by their grouping and renal form, by their serpigenous advance at their convex border, and their healing and skinning over at their concave border, are the result of mercurial cachexia; and the same is true of the so-called angina syphilitica, with serpigenous ulcers on the palate, throat, or root of the tongue, giving rise to the aphonia, so often described as a characteristic of syphilis. *Pot. iod.* cures such by eliminating the *Merc.* out of the system.

Perchloride of Iron in Diphtheria.

Page 151.—Aubrun cured thirty-five out of thirty-nine diphtheric patients with *Perchloride of iron,* ʒij, of a weak solution, every five minutes during the day, and every fifteen during the night, with as much cold milk (the sole food) after each dose. Crighton (p. 141) had an equal success with the *Tr. mur. ferri,* four to eight drops every two or three hours, along with the local application of a mixture of *Tr. fer. mur.* and *Acid mur. dil.* Out of forty-five cases he lost only nine.

Vaccination for Syphilis.

Page 151.—Practised with success by Kreyser. He made from fifteen to twenty punctures in the thighs and arms, and repeated the inoculations when the pustules had dried up.

Aconite in Tetanus.

Page 160.—Sedgewick cured, with *Acon.*, tetanus in a man, aged 30. The symptoms were very severe. The treatment was commenced on the twelfth day after the accident and the third of the disease, and continued twenty-seven days. Page. 267.—A case was similarly treated and cured by Morgan, after Strychnine had failed.

Gymnastics in Chorea.

Page 103.—Recommended by Bond. They will enable the patient to get rid of his diseased consciousness (whatever that may be), to break the incessant chain of nervous impulse transmitted through the cerebro-spinal axis, and to restore to the enfeebled will its healthy control over all the other nervous functions.

Pathogenetic Effect of Lathyrus Sativus.

Page 105.—In a very swampy district on the right bank of the Jumna numerous cases of lameness occurred. The patients averred they had all become paralytic during the rains, in most cases suddenly so, and, in many, during the night. There was no pain or splenic enlargement. The cause was believed to be the use as food of the above plant.

Belladonna in Brachial Neuralgia.

Page 166.—Lussana, of Milan, describes several kinds of this neuralgia, for the cure of which he relies chiefly on *Bell.*, used locally by inunction, endermically or cutaneously, and also internally.

A Sensible Man.

Beau, of the Charité, discountenances V. S. because he regards inflammation as especially frequent in weakly persons, because it injures the blood by diminishing its globules and increasing its fibrine, and because the results of statistics show that it is injurious. The last reason would suffice for most persons of common sense, but we suspect that all combined will not convince his colleague, Dr. Bouillaud, of the impropriety of bleeding *coup sur coup.*

Accurate Statistics.

Page 211.—Our old enemy, Dr. W. T. Gairdner, gives a paper on pneumonia, in which he says that he has had eleven fatal cases out of "from sixty to one hundred cases of pneumonia, or disease verging upon it." We cannot fail to admire the extreme value of the figures here given by the implacable critic of homœopathic statistics, and yet we should be sadly puzzled to make out the per-centage of mortality in Dr. G.'s cases of pneumonia from such data.

Discredit of the last New Specific for Phthisis.

Pags 211.—Dr. R. Quain gave a full trial to Churchill's hypophosphites of lime and soda. Of twenty-two cases subjected to the treatment, sixteen derived no benefit whatever, in three the benefit was slight and temporary, in two there was marked but temporary improvement, in one only was the improvement satisfactory and permanent. Dr. Q. ascribes the benefit to the rest, diet, and good nursing of the hospital.

Diagnostic Sign of Tubercle.

Page 218.—Dutchen thinks the red line on the gums, when present, an infallible sign of tubercle. It was present in forty-eight out of fifty-eight cases presenting the phthisical signs.

Medicated Milk.

Page 232.—Labourdette gave, with impunity, to his cows and goats 20 grammes of Pot. iod., 3 grammes of Calomel, 1 gramme of

Hydr. bichl., 5—10 grammes of Liq. pot. arsenical, daily, in order to impregnate their milk with these substances, which was then given to patients requiring these drugs.

A Hint.

Page 256.—Hebra says that all the forms of eczema may be artificially produced by inunction with *Croton oil.*

Intestinal Worms.

Page 231.—Küchenmeister administered to a criminal, measly pork on November 24, 1859, and January 18, 1860, and made the autopsy March 31. Almost 50 per cent. of the cysticerci were found in the condition of tape-worms. No cysticerci in the muscles. Page 260.—Devaine has satisfied himself that the ova of tricocephalus dispar and ascaris lumbricoides are not hatched in the intestines, but are expelled as they are laid. He succeeded in obtaining their development by placing them in water, which was changed every day. The process did not begin for six months, and the embryo was not found till nearly nine had elapsed.

Opium in Acute Mania.

Page 412.—Recommended by Legrand du Saulle, in from half a grain to six grains daily. The patient's excitement increases in most cases during the use of the remedy; if calmness is produced, it is an unfavourable sign. He thus cured seven out of ten cases of acute mania, and three out of twenty cases of chronic mania of more than a year's standing.

An Auxiliary to the Pledge.

Page 213.—Smirnoff administers to habitual drunkards a glass of strong infusion of *Asarum europeum* and of *Valerian* three or four times a day. The *Asar.* improves the appetite, and counteracts the invincible longing for alcohol.

Rather Fishy.

Page 414.—Dr. Awenarius, of St. Petersburgh, used *Propylamine* in 250 cases of rheumatism, and in every case the pain and fever disappeared the day after its administration. The dose was 20 drops, 2 dis horis. *Propylamine* is prepared by distillation from herring brine.

Digitalis in Delirium Tremens.

Page 414.—Jones gives ℥ss. of *Tr. digit.*, and a second dose of ℥ss. in four hours, and in a few cases a third of ʒji. Out of seventy cases *Digit.* failed in three only to produce sleep. In sixty-seven it was the only medicine used; of these sixty-six recovered. The fatal case had a tumour in the brain.

Iodine in Vesical Catarrh.

Page 414.—Meinhard relates three cases which resisted all other treatment, but were cured by 2 gr. doses of *Pot. iod.*

Effects of Phosphorus.

Page 439.—Lusinsky relates a case where death took place on the sixth day. There were, at first, vomiting and purging; latterly icterus, deep somnolence, rapid, weak pulse.

Arsenic-drinking.

Page 445.—Church says that, in the village of Whitbeck, Cumberland, a natural water, containing nearly a grain of metallic arsenic in a gallon, is used habitually by the inhabitants with beneficial results, their general healthiness and longevity being remarkable.

Arsenical poisoning.

Page 446.—Many cases are related of poisoning by paper-hangings, and Chevalier gives instances of poisoning by arsenical compounds contained in cotton prints, bracelets, head-dresses, linings of caps, articles of food, such as cakes and sweetmeats, coloured with arsenic, or packed in arsenical papers; preserved and potted meats, French plums, figs, and other fruits, similarly packed; also by arsenic contained in playthings, wafers, postage stamps, &c. One case is given by Biggs, of poisoning caused by a green paper lamp-shade.

Antidote to Strychnine.

Page 454.—Kurzak has found Tannin to be an antidote to Strychnine poisoning. To be effectual it must be given in the proportion of twenty or twenty-five to one. Where pure Tannin is not at hand, the following substances, which contain Tannin may be substituted—Turkey galls, tea, coffee, oak-bark, the barks of horse-chestnut or willow, the green shells of walnuts and acorns.

Poisoning by Aconite.

Page 455.—Brown writes, that about a pound of *Aconite* root was added to a gallon of pickles in mistake for horseradish. Four persons who partook of these pickles were attacked within an hour with pricking sensations, opisthotonos, trismus, partial loss of sight imperceptible pulse, and coldness of surface. Problem for an allopath: Compare the production of tetanic symptoms in poisoning by *Aconite* with the cures of tetanus above quoted, by the same drug, and then tell the therapeutic law of the matter.

Protective Power of Vaccination.

Page 496.—Berg gives the smallpox statistics of Sweden from 1748 to 1859. Vaccination appears to have first become general in 1805. After this period the annual mortality of smallpox only exceeded 1000 in five years, viz.—1825 (1243), 1833 (1145), 1838 (1805), 1839 (1954), 1850 (1007). These were all years in which smallpox prevailed epidemically. Comparing these with epidemic years previous to 1805, we find in 1752 a mortality of 10,912; in 1784, 12,455; in 1765, 17,375; 1800, 12,058. According to the author, no observations have been made in Sweden favouring the idea that scrofula, eruptive fevers, or other diseases had increased or become more malignant, since the introduction of vaccination.

Hypermetropia, a Disease of Defective Power of Accommodation of the Eye.

The memoirs of Donders on the anomalies of the accommodation power of the eye have recently attracted considerable attention. We observe that the New Sydenham Society is about to publish the original papers of that eminent oculist, which will, we doubt not, be a great addition to our ophthalmological literature. In the meantime we have much pleasure in extracting, from some excellent articles by Mr. J. S. Wells, in recent numbers of the *Medical Times and Gazette*, the views of Donders on a hitherto, we imagine, undescribed form of defective accommodation power, viz.:

HYPERMETROPIA.

"We have now to turn our attention to an affection which was but little noticed, certainly not properly understood, until the last few years. Von Graefe was the first to describe it accurately and scientifically,* and since then Donders' elaborate researches have shown how common this affection is, and how very frequently that peculiar weakness of sight, which has received so many various names, and whose nature was so little understood, viz., asthenopia, is due to it. The affection I speak of was first called Hyperpresbyopia, but it was soon found that it may, and generally does, exist without any presbyopia at all, and that therefore this name was most inapplicable. It was then termed hyperopia; this term is better, but Donders now proposes to call it hypermetropia, which is undoubtedly the best name for it, and should, therefore, be generally adopted.

"By hypermetropia is meant that peculiar condition of the eye in which the refractive power of the eye is too low, or the optic axis (the antero-posterior axis) too short, we may, however, also have both these causes coexisting. We may often almost diagnose the hypermetropic eye by its peculiar shape; it appears flatter and smaller than the normal eye, it does not fill out the aperture of the lids, there is a greater or less space (like a little pouch) between the eyeball and the canthus, more particularly the outer canthus.

"The effect of the too short optic axis, or the too low refracting power of the eye, is that the focal point of the dioptric system lies behind the retina, so that in a state of rest even parallel rays are not focussed upon the retina, but behind it, and only convergent rays are united upon the retina.

"The normal (emmetropic) eye unites parallel rays upon the retina without almost any (if any) effort of accommodation, but it also possesses the power of accommodating itself without difficulty or annoyance for divergent rays, coming from objects 6″—8″ from the eye, for a short time it can even unite rays upon the retina which come from 3″—4″ distance. The focal point of the dioptric system lies in the normal eye exactly upon the retina.

"In the myopic eye, it will be remembered, the state of refraction is too great, or the optic axis too long, so that when the eye is in a state of rest, the focus of the dioptric system lies in front of the retina, and parallel rays (emanating from objects at an infinite distance) are brought to a focus before the retina, and only more or less divergent rays are united upon the latter.

"Now, in hypermetropia we have just the reverse of this. The refractive power of the eye is so low, or its optic axis so short, that when the eye is in a state of rest, parallel rays are not united upon the retina, but behind it, and only convergent rays are focussed upon the latter. We give the slightly divergent, almost parallel rays emanating from distant objects, a convergent direction by means of a convex glass, and the reader will now see how it is that a hypermetropic eye requires convex glasses for seeing distant objects. The patient may require perhaps even a stronger pair for near objects. The consequence of this low refractive power of the eye is, that whereas the normal eye unites parallel rays upon its retina without any accommodative effort, the hypermetropic eye has already, in order to do so, to exert its accommodation more or less considerably, according to the amount of hypermetropia. This exertion increases, of course, in direct ratio with the proximity of the object. If the degree of hypermetropia is moderate, and the power of accommodation good, no particular annoyance is perhaps experienced, even in reading or writing. If, however, the hypermetropia is absolute, the patient will not be able to see well at any point.

---

* Graefe's "Archiv für Ophthalmologie," ii. 1. 179.

"We must not be surprised at the fact, that persons suffering from hypermetropia are often not aware that they see worse at a distance than other people. On the one hand, but few people have to look for any length of time at distant objects, and on the other hand the aspirations of some are so modest, that they fancy they enjoy capital sight if they can distinguish between a church and a house across a street. It is different, however, with near objects; a person soon finds out if he cannot read or write for a continuance without difficulty and annoyance.

"We sometimes meet with normal eyes which not only see perfectly near at hand and at a distance, but are capable of relaxing their power of accommodation to such an extent, that they can unite convergent rays upon the retina, being able to see at a distance with slightly convex glasses. Their eye is then hypermetropic. Donders calls this *facultative* hypermetropia.

"Let us now consider how we are to examine a person as to hypermetropia. After I have explained this, we can more easily pass on to the consideration of other questions connected with this affection.

"The patient complains that, after he has been reading or writing for a short time, the letters become ill-defined, and appear to run into each other. At a distance, however, he says he can see perfectly.

"His eye appears smaller and flatter than a normal eye; it does not fill out the palpebral aperture properly; there is a little space between the outer canthus and the eyeball. Upon turning the eye very much inwards, the posterior portion of the eyeball is seen to be flatter and less rounded than it should be.

"We tell the patient to read No. 20 of Jäger's test-types, placed at a distance of eighteen to twenty feet, so that the rays, as they impinge upon the eye in an almost parallel direction, may be considered as coming from an infinite distance. He can read No. 20 very well without any glass, and even No. 19 somewhat indistinctly. Now a normal eye should, at this distance, be able not only to read No. 19 fluently, but even No. 18, and words of No. 16. We now place a weak convex glass of 36 or 40 inches focus before his eyes; this improves vision somewhat; we try a stronger glass, and find at last that convex 20 improves most of all; with it he can read No. 18. The letters appearing clearer and well defined—convex 16 is not so good—No. 20 is therefore the strongest convex glass with which he can see well at a distance; and this, according to Donders, gives us the degree of hypermetropia, which is consequently $= - {}^1/_{20}$. Each eye should be tried separately, as the degree of hypermetropia may vary. We now let the patient read very small print with convex 20, and find that he can read No. 1 of Jäger clearly and distinctly as close as 7″ from the eye; his range of accommodation is therefore good.

"If we, however, prescribed convex 20 for the patient, and told him that these spectacles would permanently free him from all annoyance in reading, writing, etc., and that he would not, after a time, have to change them for a stronger pair, we might commit a grave error, and subject ourselves to the vexation of having him return to us in the course of a few weeks with the complaint that the glasses we chose for him did not suit: that although they enabled him to read or work for a longer time than before, he could not go on for any length of time without being troubled by symptoms of asthenopia.

"Now, into what error should we have fallen here? Simply into that of having given him spectacles which were too weak, which did not neutralize his hypermetropia.

"The fact is that the patient has been so accustomed to exert his accommodation even when regarding distant objects (in doing which the normal eye has hardly to accommodate at all), that this exertion of the accommodation has become so habitual, that he cannot relax it completely, even when there is no occasion for it, when the malconstruction of his eye is compensated for by the use of a convex lens. With convex 20 he did not, therefore, accommodate for his natural far point, but for a nearer point, as he could not relax his accommodation sufficiently. We have, therefore, arrived at too low an estimate of the degree of his hypermetropia. In order to find out its real amount we must paralyse the power of accommodation by the instillation of a strong solution of atropine. Donders has found that in order completely to paralyse the muscle of accommodation* a solution of 4 grains of atrop. sulph. to 1 ounce of water is necessary, and that it takes about two to three hours to act thoroughly. A weaker solution of 1 grain to 2000 parts of water suffices to dilate the pupil widely, but only partially paralyses the ciliary muscle.

"After the instillation of a strong solution of atropine, we, after the lapse of a couple of hours, again examine our patient. We now find that he cannot read No. 20 (at 20 feet distance) at all without glasses. A normal eye would be able to do so, would, indeed, according to Donders, become but very slightly hypermetropic after atropine, requiring, perhaps, only convex glasses of 80 or 60 inches focus to see more distinctly at a distance. In our patient, however, the difference in the degree of hypermetropia, before and after atropine, is great. Whereas, he could before its application see distinctly at a distance with convex 20, he now requires convex 8. And we now see, from the difference of the strength of the glasses required before and after atropine, to what extent he still exerted his accommodation in looking at distant objects, before we had paralysed his power of accommodation by atropine. Donders, however, points out the fact that only in young persons, with a good range of accommodation, is the difference in the degree of hypermetropia before and after atropine so great. In more advanced age, and in young persons with a smaller range of accommodation, the difference is much less. We should only put the atropine into one eye at a time, else we render the patient incapable of working for several days. After the effect of the atropine has gone off completely (which sometimes takes six or seven days) we apply it to the other eye. This precaution is the more necessary in the case of poor hospital patients, to whom the loss of a few days' work is of great consequence.

"Hypermetropia is very frequently latent. If its degree is but slight, it is often perfectly latent till the age of twenty-five or thirty, when symptoms of asthenopia begin to show themselves, if the patient is obliged to work for any length of time at near objects. Our suspicion is aroused by these symptoms, and on placing a convex glass before his eyes, we find that he can distinguish distant objects far better than without it. If the glasses be only momentarily held before the eyes, the existence of hypermetropia may escape us, for the patient has been so accustomed to exercise his power of accommodation, even for distant objects (in regarding which the normal eye scarcely accommodates at all) that he cannot at once relax his accommodation. But if he continues to look through the glasses for a few minutes, he gradually finds that the distant objects become more and more distinct, and clearly defined. In order to make sure to what degree the hypermetropia exists, and to what extent the person is obliged to exercise his accommodation in looking at distant objects, we must paralyse his power of accommodation by the instillation of a strong solution of atropine.

---

* This muscle has received various names, viz. tensor choroideæ, ciliary muscle, and Brücke's muscle.

" The hypermetropia may be so great that it is never latent, even in childhood it makes itself felt, and vision of distant objects is improved by convex glasses. In these cases it is always accompanied by a diminution in the range of accommodation, and on this account, even at an early age, two pairs of spectacles will often be necessary, a stronger pair of convex glasses for reading, writing, etc.; a weaker pair for distant objects.

" It is a curious fact that when the hypermetropia is considerable, the patient can often read better when the print is only a short distance from the eye, than when it is 10″—12″ off. Von Graefe thinks this is due partly to the diminution in the size of the pupil which takes place on looking at small objects, for the area of the pupil being smaller, some of the peripheral rays are cut off, and there is consequently a diminution in the circles of dispersion on the retina. He has also shown that on approximating an object to the eye, the circles of dispersion on the retina in a hypermetropic eye, increase comparatively less in size than the size of the retinal images. In consequence of this, there is more chance of interspaces between the letters when the print is held at a distance of 5″—6″ than at 10″—12″. At the latter distance, there would not be so much difference between the size of the retinal images and the circles of dispersion, so that the letters would appear more confused and indistinct. But besides these reasons, Donders thinks that the greater amount of convergence, and consequent increase in the action of the power of accommodation, has some influence in enabling the patient to see better at a distance of 5″—6″.

"When speaking of presbyopia, we mentioned that according to Donders, the near point begins to recede from the eye at about ten years of age, and that this recession continues uninterruptedly to advanced age. He has found that the far point remains stationary till about the age of forty or forty-five, then it gradually recedes from the eye; at fifty-five or sixty this is distinctly evident in the originally normal eye, the eye has become hypermetropic, and a convex glass is necessary for distinct vision of distant objects. But this differs much in different individuals. At seventy or eighty years of age the hypermetropia often$={}^{1}/_{24}$. Donders considers that this recession of the far point—this diminution of refraction—is due to changes in the structure of the lens, which becomes firmer and more consistent, and its surface somewhat flatter with advancing years.

"We have seen that the near point also recedes from the eye, that at the age of 45 it was about 9″—10″ from the eye, and we followed Donders in considering presbyopia to commence when the near point was removed further than 8″ from the eye. A hypermetropic eye may, therefore, at a certain age, become presbyopic; or again, an originally normal eye may become presbyopic at the age of forty-five, and hypermetropic at fifty or sixty, so that we may have presbyopia and hypermetropia co-existing in the same eye. If, with the glasses which neutralise this hypermetropia, a hypermetropic patient cannot read very small print nearer than 12″—14″ from the eye, he is also presbyopic. Let us suppose that convex 16 is the glass which neutralises his hypermetropia, which enables him to see distant objects distinctly without any effort of accommodation; on telling him to read No. 1 of Jäger with this glass we find that the nearest point at which he can do so with ease is 12″. The amount of presbyopia therefore$={}^{1}/_{24}$; and as convex 16 is the glass which neutralises his hypermetropia, the latter$={}^{1}/_{16}$, and he will require convex 16 for objects lying between 12″ and infinity, and a stronger glass to bring his near point nearer than 12″. This is easily found by the equation ${}^{1}/_{f}={}^{1}/_{24}+{}^{1}/_{16}=9{}^{3}/_{5}$. But convex 10 would, on account of the influence of the convergence of the optic axes, be found somewhat too strong. Hence convex 12 would most probably be the fitting glass.

"The range of accommodation of a hypermetropic eye is easily found. We must first change it into a normal eye by furnishing it with that convex glass which will enable it to see distant objects distinctly without almost any exercise of the accommodation; and then, still wearing this glass, find the nearest point at which it can read No. 1 distinctly and easily. If the patient requires for distant vision convex 20 before the instillation of atropine, and convex 10 after it, we should try his nearest point with a glass between the two—No. 16 for instance (*), for No. 10 would be too strong. He has been so accustomed to strain his accommodation that he cannot all at once really command his near point with convex 10.

" Let us now suppose that with convex 16, his near point (p) lies at 7″; his far point (r) has been found to be at an infinite distance (∞); for he can see distant objects well with convex 16 without much effort, although convex 20 is best. This range of accommodation (A) is to be found by the formula, $A={}^1/_p-{}^1/_r$. Now $p=7''$, $r=\infty$, hence $A={}^1/_7-{}^1/_\infty={}^1/_7$. His range of accommodation$={}^1/_7$.

" When we have gradually accustomed the eye to the use of stronger and stronger glasses for distant vision, and have finally gone over to the use of the glass which completely neutralises the hypermetropia (which is convex 10 in our supposed case), we may try the range of accommodation again with this glass.

" I am well aware that this plan of finding the range of accommodation is not mathematically exact. But it is by far the simplest and quickest proceeding, and sufficiently accurate for all practical purposes. And as my object in these papers is to make the subject of which I am treating as simple and practical as possible, I have purposely abstained from entering into elaborate formulæ, and somewhat intricate questions and experiments.

" Let us now consider the method of suiting hypermetropic patients with spectacles.

" We must first discover the amount of the hypermetropia before atropine, by letting the patient read No. 19 or 20 of Jäger at a distance of 20 feet. Let us suppose that convex 20 is the strongest glass with which he can read No. 19 fluently and distinctly. His hypermetropia before atropine therefore $={}^1/_{20}$. We then try the nearest point at which he can read No. 1 comfortably; this is found to be 7″. He is, therefore, not presbyopic. In order to find out to what extent he has strained his accommdation in reading No. 19 through convex 20, and to know what glass will completely neutralise the hypermetropia, we paralyse his power of accommodation—his ciliary muscle—by the instillation of a strong solution of atropine (gr. iv. to the ounce of water). After this has acted for a couple of hours we examine the patient again. He cannot now read No. 20 without a glass, or even with convex 20; but now requires convex 10 for reading No. 19 fluently. The real amount of hypermetropia therefore = $1/_{10}$. He has, however, been so accustomed to strain his powers of accommodation that he could not relax it completely, even when there was no occasion for accommodating at all, when we corrected the malconstruction of the eye by means of a convex-glass.

---

* I need not point out the necessity of waiting until the effect of the atropine is thoroughly gone off, which may take five or six days, before testing the range of accommodation.

"What spectacles are we to give him?

"If we were to prescribe convex 10 they would be found too strong for distant objects, or even for reading. He could not all at once relax his accommodation, so as to be able to use the glasses, which really neutralise his hypermetropia, and which must ultimately be used if we wish to free him permanently from the annoyances of his affection. We must, therefore, gradually accustom his eyes to stronger and stronger glasses, until convex 10 be reached. Let us begin with convex 18 or 20. He is to wear them both for reading, writing and distant objects. Never, indeed, laying these spectacles aside when he is using his eyes. In the course of a few weeks we give him convex 16, then 14, 12, and, at last, after the lapse of a few months, he can wear No. 10 for reading and for distance.

"When the degree of hypermetropia is great, or when presbyopia co-exists, two sets of spectacles will be required, a strong pair for reading, writing, etc., a weaker pair for distant objects."

The following is a *resumé* of what has been said on the subject of hypermetropia:—

"In this affection the refractory power of the eye is too low, or its antero-posterior axis too short, so that when the eye is in a state of rest, parallel rays, emanating from distant objects, are not focused upon the retina, but behind it, only converging rays being united upon it. But the latter do not exist in Nature, and the eye must either exert its accommodation to render parallel rays sufficiently convergent to be brought to a focus upon the retina, or we must, by means of the proper convex glass give them a sufficiently convergent direction. In the latter case we neutralise the hypermetropia, and transform the hypermetropic into a normal eye, which unites parallel rays upon the retina without almost any exertion of its accommodation apparatus.

" The presence of hypermetropia is thus tested. If a person can see distant objects through a convex-glass, he is hypermetropic. The best object is Jäger's test-type. The strongest glass with which the patient can read at a distance of 20′ gives us the degree of hypermetropia *before* the action of atropine. If this glass be convex 24, his hypermetropia $= -1/_{24}$. The power of accommodation is then to be paralysed by a strong solution of atropine (four grains to one ounce of water); after this has acted for from two to three hours, the degree of hypermetropia is to be again tested. In young persons with a good range of accommodation, the difference in the convex glass required before and after atropine is often very considerable. In the normal eye the far-point begins to recede from the eye about the age of 55 or 60, the eye becomes hypermetropic, at 80 the hypermetropia may according to Donders, $= 1/_{24}$.

" *Range of Accommodation.*—We change the hypermetropic eye into a normal one by means of the suitable convex glass, and then find the nearest point at which No. 1 of Jäger can be read with this glass. If the near point lies at 7″, $A = {}^1/_7$.

" It has already been pointed out that presbyopia may co-exist with hypermetropia.

" *Spectacles.*—A person suffering from hypermetropia must be gradually accustomed to wear those glasses which neutralised his hypermetropia after the accommodation was paralysed by atropine. At first weaker glasses will be required, but the strength should be gradually increased until he has arrived at the glass which really neutralises his hypermetropia. These spectacles should be worn both for near and distant objects, should, indeed, be always worn when the eyes are used. If the hypermetropia is great, or if a presbyopia co-exists, two pairs of spectacles will be required, a strong pair for reading, etc., a weaker for distance.

" *Hypermetropia is a very frequent cause of Asthenopia, and also of Convergent Strabismus.* The asthenopia is produced by the overstraining of the accommodation apparatus in reading, writing, etc., without the proper spectacles. We have seen that the hypermetropic eye has already to exert its power of accommodation, more or less, for distant objects, in viewing which the normal eye hardly uses its accommodation at all. How much greater must this exertion be when the hypermetropic eye looks for any length of time at near objects, the rays from which are strongly divergent. The eye cannot keep up this great strain of its powers of accommodation for any length of time, and hence symptoms of astenopia soon arise.

"*Hypermetropia often causes Convergent Strabismus.*–As the power of accommodation increases when the convergence of the optic axes is augmented, a person suffering from hypermetropia often squints inwards involuntarily, in order to see more distinctly. This squint soon becomes permanent, if the hypermetropia is not treated, and a strasbismus operation will then be required."

The Composition of the Sun and Chemical Analysis by the Spectrum.

THE gorillas, and M. Du Chaillu's adventures, have formed the leading topics of the scientific gossip of the season. But they have not been without a rival; for the curiosity of the thinking part of society has been almost as much excited by accounts of new discoveries of the composition of the sun, as by those of the discovery of the nearest relations of the human race in Central Africa. The interest excited by the discussion on the physical composition of the sun, at the meeting of the British Association at Oxford, last year, has been so kept up by the brilliant account which Faraday gave at the Royal Institution, of the results of the observation of the total eclipse in Spain, as well as by Professor Roscoe's Lecture on March 12, on Bunsen and Kirchhoff's researches; and by Professor Tyndall's, on June 7, that we are tempted to give our readers such an account of the matter as our limits allow.

The sun is an enormous mass, or *nucleus*, of matter, heated to an inconceivable degree, and luminous in proportion; and it is surrounded with an atmosphere of flame. This, under the influence of the rotation of the sun on its axis, is subject to variations of temperature, and to currents passing from the equator to the poles and back again, like those in the atmosphere of the earth; and not less to tropical storms and whirlwinds of flame. Most remarkably do the photographs of the late total eclipse show this flaming atmosphere as it appeared at the edges of the darkened disc, as well as the existence of certain huge outlying masses of flame, which hover over it, apparently detached like clouds.

The light of the sun, as is well known, can be separated by the prism into seven rays of colours, known as *prismatic*, and these present a number (nearly 600) of dark lines parallel to each other, which, from the name of their discoverer, are called Fraunhofer's lines. These lines are constant, or fixed, and always occupy the same place in the spectrum; and they are accurately catalogued and numbered.

Having set forth these facts about the sun, let us turn to some few elementary doctrines, very clearly stated by Professor Tyndall, and showing the exact harmony which exists between light and sound, and the similarity of the condition which generates either sensation. Heat and light are propagated by means of an ether which fills space, and whose existence is proved by its retarding the speed of comets. They consist in certain movements or vibrations of the atoms of bodies. When these vibrations are communicated to the surrounding ether, they are said to *radiate*. When they are communicated to and arrested by any other body, they are said to be *absorbed*. Some gases—oxygen, for example—do not give off heat by radiation; others, as olefiant gas, do so largely. The same gases which radiate also absorb it, and *vice versâ*. This was shown very beautifully by experiments, in which a current of oxygen passing over a heated copper ball did not affect a thermo-electric pile, while a current of heated olefiant gas did so; and by a counter experiment, showing that a sheet of oxygen gas does not arrest the heat radiating from a heated surface, but allows it to pass through, while a sheet of olefiant gas arrests, absorbs, and cuts off the heat, and does not allow it to pass through. The difference in the relation of these gases to heat was stated to depend probably on mechanical principles. The atoms of simple bodies, being probably simple spheres of extreme tenuity, allow the vibrations of the ether to pass over them; while the atoms of compound bodies, being complex, arrest them mechanically, and are capable of communicating them by radiation. The more complex the gas, the greater does its power of radiation and absorption of heat become.

As sound consists in the coarser vibrations which affect the auditory nerve, so light consists in other subtler vibrations which are taken cognizance of by the optic nerve. The intensity or loudness of sounds depends on the *extent* of the vibrations or on the magnitude of the wave, and the *pitch* on the number of vibrations per second. Just so, it seems certain that there is a numerical ratio between the breadth of the vibrations of the luminiferous ether, which constitute colours. But any vibrating body—the pendulum of a common clock, for example—is able to be set vibrating by any other body vibrating in equal measure. So a string in a piano will often resound to a similarly sounding string. So also any luminous particles absorb the vibrations of any similarly luminous particles which impinge upon them.

The vapour of every metal, heated to incandescence (as when a solution of soda in alcohol is burned), yields light of a peculiar colour, having definite refractive powers, and when passed through the prism, appearing in the form of one or many bright, luminous bands, at a particular part of the spectrum. The commonest example is sodium, the incandescent vapour of which, in any combination, yields a homogeneous yellow light, which, passing through the prism, appears as a yellow band in a definite place. Every other metal produces its own band or series of bands in a definite part of the spectrum, and no two metals agree in the colour, the number, or the place of these bands.

Now for the practical results of these purely scientific details. First, by these means—that is, by observing the exact place, number, and colour of the luminous bands produced when any metallic substance is so heated as to rise in vapour and to shine as flame does—a new instrument of chemical analysis is placed in the hands of the philosopher. It is in its infancy yet, but it is very possible that we may see it used for the determination of the presence of metals. Any one who has seen the instrument exhibited by Mr. Ladd, will not doubt this. Any number of metals may be mixed, and yet their flame will give all the bright bands produced by each separately. Result the second is, that at least two new metals have been discovered. For the residue after evaporating certain mineral waters, produced by its flame two bright blue lines, not referrible to any known metal; and the substance, submitted to analysis, yielded a new metal, which from its coloured flame has been called *cæsium.* Another new metal has been found, which, from its red lines has been called *rubidium.* It has been discovered, further, that many metals, once thought rare, are really very widely diffused, though in extremely minute quantities. Lithium is an example. Professor Roscoe tells us that it is found in most rocks; in sea, river, and Thames water; in the ashes of tobacco and most plants; in milk, human blood, and flesh. The third result is the demonstration afforded of the chemical composition of that atmosphere of flames that envelopes the sun. White light produces a spectrum of seven colours. The flame of any given metal produces one or more bright coloured bands only, and not an entire spectrum. When an intense white light is passed through the light of a metallic flame, a dark line is seen, in the exact situation of each coloured band. When, for instance, a soda flame is placed before the electric light, a dark band is seen in the yellow part of the spectrum where a bright yellow band would have been if the soda flame had been there singly. The fact being that the yellow rays of the white light are absorbed by the isochronously vibrating particles of the soda flame. Now the sun has a nucleus, yielding an intense white light, like the electric lamp; and it has a less intensely luminous atmosphere of flame around it; and its spectrum contains dark lines; and these dark lines coincide in place and number with the dark lines produced when certain incandescent metallic vapours are put before the electric light,—therefore the flaming atmosphere of the sun contains these metals. Iron, sodium, magnesium, and nickel exist there largely, whilst it seems that silver, copper, zinc, aluminium, cobalt, lead, and antimony, are probably absent. In addition to the knowledge thus certainly obtained, a very probable hypothesis may be formed of the nature of the spots in the sun. From the immense magnetic disturbances with which they are associated, they are probably masses of iron, in a cool and non-candescent state, precipitated during the fluctuations of temperature which accompany the tornadoes that occur in the tropical regions of the sun's atmosphere.—*Medical Times and Gazette*, June 22nd, 1861.

Rademacher on Chelidonium Majus.

In a former part of this number we have inserted an article on the use of *Chelidonium* in some neuralgic affections. It is, no doubt, true, as the author asserts, that the employment of this drug in old-school medicine is almost *nil*; but it is not so in the system of revived Paracelsism, introduced by Rademacher. On the contrary, *Chelidonium* is a very conspicuous curative agent in Rademacher's treatment, and we think we shall interest our readers by giving them the substance of that very original writer's remarks on its use.

The preparation of *Chelidonium*, preferred by Rademacher, is a tincture, prepared in the same way as Hahnemann's tinctures. In the peculiar phraseology of Rademacher, *Chelidonium* is a *hepatic* remedy acting on the internal structure of the liver. But we shall give his own account of his first employment of the drug and of the disease in which he found it most serviceable. Our readers will, we are sure, find pleasure in perusing the graphic description of the disease, which reminds us of Hippocrates more than any other medical author:—

"I must first," he says, "to my shame, confess that up to the year 1827, I felt nothing but contempt for *Chelidonium* as a hepatic remedy, for which it had in former times been renowned, and I believed I had found a substitute for it of a more efficacious character. The reason why I despisd it was because in my youth I had often seen it employed in jaundice, but without ever seeing the jaundice removed by it. Moreover, in the first third of my medical career, jaundice was a disease rarely met with, and the cases that occurred were so slight that a dose or two of Calomel, or the moderate stimulus of a purgative, sufficed to cure them. Subsequently, accident rather than the teaching of others directed my attention to the action of *Nux vomica;* and afterwards, when during a prevalence of gastric affection, I had a great deal to do with cases of jaundice that came to me, many from distant parts, I had very frequent opportunity to strengthen my prepossessions against *Chelidonium*, by seeing the ineffectual employment by other doctors of prescriptions in which Calomel, *Extractum chelidonii*, and Aloes were constant ingredients. At length, in the year 1827, I was punished for my want of faith in the experience of the old masters, by much toil and trouble.

"Late in the summer of the year alluded to, a curious kind of fever commenced to show itself, which, after careful examination, during which I had to play longer than I liked the part of a hesitating and cautious experimenter, I discovered to be a primary affection of the internal structure of the liver. Now, as medical works treat more of affections of the convex and concave surface of the liver than of its internal structure, my readers may think it odd that I should pronounce this to be an affection of the interior of the liver; they might justly think that such subtle distinctions of morbid states came very ill from one who, like myself, pretended to be a pure experimental doctor.

"True it is, that if I were compelled to enumerate the signs that distinguish all cases of this hepatic affection from all other hepatic affections, I should be much embarrassed. Nature has drawn no very sharply defined limits betwixt the different morbid states of an organ. The internal liver-affection in its extreme character, in its most perfect form, can be very well distinguished both by the senses and the reason from the other morbid conditions of the liver. It is only when, by inappreciable shades, it approaches to other morbid conditions that its distinctive signs become always more indistinct, and at last vanish altogether. The perfect form of the internal hepatic disease is distinguished by white, quite colourless fæces, as in jaundice, and by the complete absence of all the other symptoms of jaundice. The skin is and continues white, has not even a dirty appearance, and the urine is merely straw-coloured, as in healthy persons. This internal liver affection in such a perfect form is rather rare; still some writers have described it. I have seen five cases of it in my life. But had it never been alluded to by medical authors, had I only seen a single case of it, still this one case would have sufficed to establish the reality of such a morbid condition as much as if I had seen a hundred, or more, and considering the incontrovertible truth that nature produces innumerable degrees of one and the same morbid state, we should have been forced to take for granted innumerable degrees of such a disease.

"It is not necessary that a physician should possess any great experience in order to know that the disease of the liver, which in its most perfect form results in jaundice, has innumerable degrees, some of which would not be called jaundice either by medical or non-medical persons. The very slightest degree of this morbid state, however, is accompanied by a golden colour of urine, and the skin, especially that of the face, has a more or less dirty appearance. Now, as, in the cases above alluded to, the white fæces incontrovertibly proved that the bile ceased to be poured into the intestinal canal, so the absence of the slightest symptoms of jaundice proved just as incontrovertibly that here not only was no bile poured into the duodenum, but that the unknown organ whereby the bile is formed from the blood was itself diseased; that, in fact, there was no bile present, therefore none absorbed, deposited in the skin, or evacuated by the urine. So when I talk of an affection of the interior of the liver, the reader will be so good as only to regard this as a figurative expression, for I am free to confess that I know no more than any of my colleagues, in what particular part of the liver the actual bile-making organ is placed.

"Now to the fevers. They commenced with alternate rigor and heat, and this state continued a long time—often two or three days. The headache was moderate, and went off in the first days of its own accord; instead of it there always occurred a sensation of giddiness or staggering, to which those around them gave the name of madness or light-headedness. This sensation, however, as is well known often precedes ordinary bilious fevers and brain fevers. I remember only two patients who had violent intolerable headache, such as occurs in brain fever. The pulse was moderately quick, just as it is in ordinary innocuous fevers; in very few cases was it irregular. The thirst varied in different cases, but was on the whole moderate; the tongue not furred, hardly showing in the centre a slight white coating. No pain or tension in the precordial region. In very rare cases a slight pain in the hepatic region could be detected. Chest affections were rare, and were only present in those cases where there was slight hepatic pain. Some patients were observed to sigh involuntarily. Bitter, sour, or foul taste, eructations, nausea, &c., were not present; and when, as very rarely happened, a patient complained of bitter taste, this symptom was removed in 24 hours, by means of *Natron*, without its removal having the slightest modifying influence on the disease. The urine varied—in some it was yellowish and somewhat turbid, without being actually opaque; in others it was clear, and of a bright golden colour, just as it is in slight affections of the biliary ducts; in others, again, it was pale straw-coloured, as in healthy persons. In many cases, when they entered on convalescence, the urine became dark yellow, as in decided affections of the biliary passages. However the urine might vary, it was never deficient in uric acid.

"The muscular powers were little weakened even in advanced stages of the fever, and, with the exception of two patients, who could not raise themselves up in bed, most of them could not only do this without assistance, but with the aid of another's hand could get out of bed; indeed there were many who could do this without any help.

"The skin was neither dry nor moist; in some there was an occasional outbreaking of perspiration, which, however, did no good. The complexion in some was quite unchanged; in others, it was dirty, as it is in some slight affections of the biliary ducts.

"The febrile paroxysms were irregular; they showed themselves in the patient's restlessness, and in the increased fulness of the pulse. The remissions were not marked by diminished quickness, but by diminished fulness of the pulse.

"It is quite impossible to describe perfectly the course of the disease on account of its irregularity; it might last from three to twelve weeks. Most of the symptoms might occur either early or late; in short, there was something so changeable in its course, that the best thing I can do is to mention the symptoms that attended it one by one, noticing whether they occurred frequently or seldom, early or late. These symptoms were the following:—

"Subsultus tendinum was frequent, and often occurred during the first five days.

"Dryness of the tongue was frequent, but did not last; to-day the tongue might be dry, to-morrow moist, and the day following again dry, and so on. This symptom might occur in the first six days. I never saw the tongue constantly dry, and covered with a thick dirty coating.

"Raving was very seldom constant; it occurred in the first eight days—indeed, in one young lady I observed the very first day a mental excitement bordering on mania. But the delirium was seldom continued. I could observe no regularity in its coming and going. In some few it was continued. In two cases it was attended by a constant desire to leave the bed; in many there was no delirium at all. In one female patient I observed, what is rare in acute diseases, not exactly raving, but great perplexity about religious subjects. This woman had never before troubled herself about religious difficulties, nor did she after her recovery.

"Diarrhœa was very frequent—indeed, so frequent that its absence must be looked on as an exception to the rule. It came on early; the disease often commenced with it; in some, though rare cases, it was a premonitory symptom of the disease; in most, it continued until the patient's recovery. The fæces were generally bright yellow, like babies' motions; in some however they were of the normal brown colour. I do not remember any case where they were grey or white. The most extraordinary symptom in this fever was the involuntary discharge of the fæces, which did not certainly occur in all those who had diarrhœa, but in very many of them; nor was it a constant phenomenon among the latter, but it varied, so that one day they dirtied the bed, the next day remained clean, and so on; and yet no kind of regular periodicity could be detected in the alternate appearance and disappearance of this troublesome symptom. I should not forget to mention, that the diarrhœa was quite unaccompanied by pain; the usual feeling in the abdomen before a stool, that every healthy person has, never preceded the evacuations.

"Drowsiness occurred in some patients earlier, in some, later; but was variable, like the delirium.

"Chest affections were rare; cough rare, both in the course of the disease and during the convalescence.

"Pains in the abdomen occurred in many patients (but by no means in all) in the later periods of the disease, and were sometimes so violent as to make the physician anxious about the patient's recovery. I remember a case where two old doctors in consultation took these violent abdominal pains for inflammation of the bowels, and treated them accordingly. I know not if the *post mortem* examination confirmed their views. These abdominal pains, however, are not characteristic of the fever I am describing; for though I have not met with them in ordinary bilious fevers, I have often enough seen them occur in the later periods of other abdominal fevers."

Rademacher then proceeds to enumerate the various remedies he tried unsuccessfully in this fever, and relates how he was led at last to the selection of *Chelidonium*. The administration of this drug, he considers, shortened the duration of the disease to one-third of its natural course. Thus it cured it in from 14 to 18 days; whereas, when left to nature, it required 40, 60, 80 days, or even more, for its cure. The doses he gave were 1 drachm of the tincture mixed with 8 oz. of water—a spoonful every hour when there was no diarrhœa. If, on the contrary, diarrhœa was present, the strength of the medicine was diminished, a scruple only being mixed with the 8 oz. of water.

Wisdom in High Places.

Our readers have, doubtless, not forgotten the declaration required by the "King and Queen's College of Physicians" from each licentiate, which we published in our last number.* They will remember that the document in question commences thus:—

"I engage not to practise any system or method (so-called) for the cure or alleviation of disease, of which the college has disapproved;" and then it goes on to state the pains and penalties that are to follow any violation of this solemn declaration—such as censure, pecuniary fine, expulsion, and surrendering of the diploma.

---

* Vol. xix., p. 575.

As the declaration named not the particular systems or methods of treatment that had incurred the displeasure of the College, and the practice of which, by any of its licentiates, was to be visited by such heavy penalties, the very vagueness and mystery thereby added to its denunciations and threats were calculated to impress with awe the subscribing licentiate. Possibly, candidates for the licence of the College might also be altogether repelled from the attempt to obtain it, by a doubt as to whether they might not perhaps one day unconsciously practise one of the proscribed systems or methods, and thereby forfeit the honours they had obtained by a severe examination and considerable pecuniary expenditure. Indeed, we can fancy the vague denunciation of the College creating such terror among contemplating licentiates as to deter them altogether from the attempt, and driving them into the bosom of some other Alma Mater, to the great loss of the College which insisted on the dreaded declaration.

What in the name of all that is scientific, we exclaimed, can be the systems and methods of treatment disapproved of by this College? We ransacked back numbers of the medical journals to find some answer to this question, but in vain. Has the council of the College, in secret midnight conclave assembled, formally denounced by name those systems and methods it vaguely alludes to in this declaration? We could obtain no answer to our query in the past archives of medical intelligence. How to clear up the mystery? Evidently nobody could give us such authentic information as the College itself. To the College therefore let us write, and respectfully demand what are those methods and systems of treatment that it has disapproved of. Will Mokanna remove his veil at our request, and disclose his hidden features? That we can only ascertain by trying. So, embracing the opportunity offered us by the enquiries of a young friend desirous of obtaining the licence of a College of Physicians, we wrote on his behalf to the Registrar of the College, requesting that he would kindly inform us what were the particular "systems and methods for the cure and alleviation of disease" that had incurred the disapprobation of the College, and moreover, if it was compulsory on licentiates to subscribe the declaration which imposed all those pains and penalties on him who should practise any of the disapproved systems and methods. Our missive was dated the 14th Oct., and by return of post we received the following answer from the Registrar:—

"King and Queen's College of Physicians in Ireland,
"Dublin, 15th October, 1861.

"Sir,

"In reply to your queries, I have to state that the College has not disapproved of any system. Canditate have to take the delcleration before being admitted.

"I am, sir,
"Your fai,
"LOMBE ATTHILL."

We give the registrar's answer as it stands, with all its peculiarities of orthography, judging from which we might perhaps conclude that the hall porter of the College combines the office of registrar with his less literary avocation, or else, that like his countryman of the story, the registrar had such a bad pen, that it would not spell properly.

The veiled prophet removes his mask, and behind it we discover—nothing at all! The systems and methods of treatment disapproved of by the College, and prohibited to its licentiates under fearful penalties, have no existence! The College tries to scare its licentiates with *bogie;* but behind the sheet there is nothing. It makes a new decalogue, in which it threatens condign punishment to those who practise what it disapproves, and all the time it disapproves of nothing; and yet it insists on candidates subscribing a declaration—or *delcleration*, as the registrar writes it—which binds them to abstain from—nothing!

Is the whole thing a hoax or a bull? Considering which side of the Channel it was concocted in, we should be disposed to consider it the latter, were it not that it is too stupid even for an Irish bull. We are rather of opinion that the College was in such hot haste to assert its purity in the face of the medical profession that it committed the slight mistake of putting the cart before the horse—we mean, exacting a promise from its licentiates to abstain from heterodox systems before it had made up its mind as to what these heterodox systems were.

We may imagine a dialogue, something like the following, occurring between the president and a candidate for the licence of the College.

President—"The examiners unanimously agree that you've passed a creditable examination, so I'll just throuble ye to put yer hand to this bit o' writin', bindin' ye not to practise any of the systems or methods for the cure or alleviation of disease the College has disapproved of."

Candidate—"Permit me to ask what systems the College has disapproved of?"

President—"Faith, and ye may ask, my boy; but it will be hard to answer ye, for the divil a system has the College disapproved of, at all, at all."

Candidate—"Then I cannot see the use of signing a declaration of this character."

President—"Och, and do ye mane to doubt the wisdom of the College, ye spalpeen? Sign away, or sorra a diploma will ye get from the College. By the shilelah of Æsculapius, is it the use of signin' ye want to know? then let me tell ye, that the use ye'll find to be this—sign and we admit ye, refuse to sign and ye'll find 'No admission' chalked up for ye on the College door."

The candidate, convinced by this irresistible logic, signs the unmeaning declaration and pockets his diploma, deeply impressed with the sagacity of the College authorities.

A Chronic Opponent.

In former days we enjoyed the acquaintance of a young gentleman, of prepossessing appearance, but not overburdened with worldly wealth or intellectual endowments. He became smitten with the charms of a young lady who lived with her parents, whose only child she was. One fine morning this young lady received a letter from her innamorato, couched in the following terms:—

"My dear Miss ——,

"The admiration I have long entertained for you has, on further acquaintance, ripened into a warmer sentiment. When I now confess that I love you, I believe that you will not feel altogether surprised; and I hope I do not deceive myself in supposing that my passion is reciprocated by you. My future fate is now at your disposal. I trust you will not refuse to make me the happiest of men, by accepting my hand and fortune, and I sincerely hope that my honourable proposals will meet with the sanction of your parents or guardians (*as the case may be*). Should it be my enviable lot to be united in matrimony with one I so ardently love, it shall be the study of my whole life to promote your felicity, and my earnest endeavours shall ever be directed to render myself agreeable and useful to your brothers and sisters (*if any*);" and so on through four pages of highly glazed, delicately tinted, and strongly perfumed note paper, such as was fitting for the momentous occasion.

When we look through any of the pamphlets that have been written against homœopathy any time these ten years back, we are irresistibly reminded of our sapient young friend, who copied his epistle from the *Complete Letter-Writer*. There must, we are confident, exist somewhere a *Complete Anti-homœopathic Pamphlet Writer*, from which all these controversialists conscientiously copy all their arguments and statements, totally irrespective of what has been written on the opposite side, and of the real facts of the case. We are certain to meet with stereotyped phrases like the following:—"The careful trials of homœopathy by the distinguished Andral"; "the masterly exposure of the system by Professor Simpson"; "the refutation of their mendacious statistics by Dr. Routh"; "the triumphant reply of Dr. Gairdner"; and we may usually expect to read in one page about the greedy little boy who swallowed a whole caseful of globules, bottles and corks included, and was not a bit the worse; and on the next page, the tragical fate of the Duke of Something-or-other, who fell dead on the spot after taking a single globule. The anti-homœopathic pamphleteers do not know, or do not care to know that the trials of Andral have been shown to be illusory; that Professor Simpson only exposed himself, not homœopathy; that Dr. Routh unconsciously furnished the most telling proofs in favour of the system he attacked; and that Dr. Gairdner drew entirely on his imagination for his facts. The greedy boy's swallow was nothing compared to that of these pamphleteering gobemouches; and the illustrious duke, whose tragical end excited the sympathy of their readers, was alive and well when last heard of. But what of that? The above phrases and allegations stood ready for them, and they must needs copy them literally, just as our amorous friend transcribed from his *Letter-writer* that generous offer of his hand and fortune, though he had not a rap; and that modest wish for the sanction of the "parents or guardians (*as the case may be*)"; and that affecting devotion "to the brothers and sisters (*if any*)," though he must have known that there were no guardians or brothers and sisters in the case. The pamphleteers must know by this time that all the old allegations against homœopathy have been proved to be unfounded; but still they must reproduce them, as their pamphlets would look incomplete without them, and they have not the wit to invent new ones in their place.

Our old enemy, Dr. Edwin Lee, has just published another pamphlet against homœopathy,* which, of course, contains all the old mis-statements respecting it, that have almost become venerable from their age, and ought by this time to be almost true, if frequent repetition can ever change a falsehood into truth, as many people seem to think.

How is it that Dr. Edwin Lee has constituted himself, as it were, the champion of the anti-homœopathists, so that when any event occurs to make homœopathy talked about, we are as sure of a pamphlet from him as we are of a sermon by Mr. Spurgeon on every event that interests the nation or the metropolis. And how is it that all those who write against homœopathy must needs misrepresent it while they attack it?

Sir Emerson Tennent, in his new work on Ceylon, says the Cingalese have a tradition that the leopard when hard up for food, digs up lumps of the white porcelain clay, or kaolin, lays them down beside him, and then gazes steadily on the sun for a short time, so that when he again looks at the lumps of clay, they no longer appear white, but blood-red, like bits of flesh, whereupon he devours them with eager relish. Have, perchance, our opponents, like the Ceylon leopard, been so dazzled by gazing at the brilliant sun of allopathy, or, mayhap, by the glittering corruscations of the flashing *Lancet*—at once the emblem and the organ of their craft—that the pure white and innocent homœopathy appears to their distempered mental vision as a sort of monstrous Raw-head-and-bloody-bones, which they must incontinently attack and "chaw up?"

Besides attacking homœopathy in general, Dr. Lee, into whose hands the recent pamphlets of Drs. Drury and Sharp have fallen, attempts a feeble critique of these not very successful productions, and manages to maunder along through some sixty pages of print in a dreary fashion, spinning out the little he has to say by means of copious quotations from like-minded writers. On the whole, we don't think Dr. Lee has improved in controversial writing since his first onslaught upon us some twenty odd years since.

---

* Remarks on Homœopathy, being a rejoinder to some Replies elicited by Sir B. Brodie's letter in *Fraser's Magazine*, by Edwin Lee, M.D. London: Churchill, 1861.

Dr. Richard P. Cotton on the Action of Steel in Phthisis.

THE following observations upon the action of steel were made upon twenty-five in-patients of the Consumption Hospital. As in all my preceding experiments, I studiously avoided any selection of cases, and excluded only those in which the disease was obviously too far advanced to render any kind of treatment available, and those in which there existed some complication which would tend to negative the result.

Of the twenty-five patients ten were males and fifteen females. Six were in the first, six in the second, and thirteen in the third stage of the disease. Ten were under the age of twenty, and the rest were between twenty and forty years of age.

I selected the old *vinum ferri* as being the most simple of the many forms of iron, as well as one which is seldom objected to, and is rarely found to disagree. At the commencement I prescribed two drachms twice a day, each dose being gradually increased to half an ounce, and, in some few instances, to an ounce. The treatment was continued for periods varying, according to the different cases, from four to thirteen weeks. In two or three of the female patients, the steel seemed to cause slight headache, which, however, generally disappeared when the dose was lessened or temporarily discontinued. During its use the patients' appetites were usually very good, and there was not the slightest indication of increased liability either to hæmoptysis or any other active symptom of the disease.

Of the twenty-five patients, thirteen *greatly* improved; three *slightly* improved; and nine derived *no benefit;* of these, three died in the hospital.

In thirteen of the cases cod-liver oil was occasionally but not regularly taken in conjunction with the steel; but in the remainder, no other medicine was administered except some simple linctus for the cough. Fourteen patients increased in weight—some of them very considerably; eight lost weight; and three remained unchanged in weight. Nine of the fourteen cases in which the weight increased were of those who had taken cod-liver oil. One of these patients, in the second stage of the disease, illustrated the remarkable but not very rare phenomenon, of increasing in weight, whilst both the local and many of the general symptoms of consumption were steadily advancing.

Of the thirteen patients *greatly* improved, several left the hospital with their general health restored, and their active symptoms dissipated. Four were especially remarkable for the improvement they exhibited, being able, in spite of the unmistakable existence of pulmonary cavities, to resume their several occupations on leaving the hospital.

Seven of the thirteen improved cases were under the age of twenty—a large proportion, if we consider the respective ages of the patients.

Perhaps I may here remark, that although I had not hitherto compared and tabulated the cases I have treated with steel-wine, I have long been in the habit of prescribing this medicine, in conjunction with cod-liver oil, to phthisical and strumous patients, especially to children and young persons, and have always placed great faith in its efficacy. I have, indeed, always considered it amongst the most useful remedies in this class of diseases; and in this homage to the *vinum ferri* very many of my medical brethren will doubtless join. That the remedy fairly deserves to be thus estimated, is, I think, sufficiently shown by the experiments I have detailed.

After I shall have recorded similar observations upon a few other substances which are now undergoing probation in my hospital wards, I hope to give a general summary of their comparative results. And, although I am quite willing to admit that any conclusion at which I may arrive in the course of these experiments must necessarily be imperfect, and at most but an approximation to truth—considering that, in order to reach the actual truth, many insuperable difficulties present themselves, such as a want of uniformity in the cases, circumstances, and stages of the various patients, as well as in the season of the year, the diet, and a multitude of other circumstances—it will, I think, be nevertheless conceded, that the trial to which I have subjected the different remedies is not altogether unproductive, and that on the present occasion steel-wine comes before us very favourably as a medical agent in the treatment of phthisis. In order, however, to assimilate this paper with those which have preceded it, I would record the following conclusions:—

1. Steel-wine is a very useful auxiliary in the treatment of a considerable number of consumptive patients.

2. It seldom disagrees, but tends rather to increase the appetite and improve digestion.

3. It is especially valuable in the cases of children and young persons.—*Medical Times and Gazette.*

Nitrate of Uranium in Diabetes. By Edwin M. Hale, M.D., of Jonesville, Mich.*

The attention of the homœopathic profession was first attracted to this new remedy by a communication from F. S. Bradford, M.D., and is to be found in Vol. viii., page 502 of the *North American Journal of Homœopathy.*

For the benefit of those who may not have back volumes of the Journal, and as the article referred to is a brief one, I take the liberty of republishing it. The results of my own experience satisfy me that this remedy will prove one of the most valuable in the treatment of the different forms of diabetes and diuresis, of all the medicines used for those maladies.

The following is the communication of Dr. Bradford:

"It is not the object of this paper to discuss the treatment of diabetes farther than to *propose a new remedy*, to the trial of which I was led by a statement contained in the January number of the *British and Foreign Medical Chirurgical Review* for 1857. In review 111, page 34, it is stated that the gradual poisoning of dogs with small doses of the Nitrate of Uranium invariably caused the urine of the animals thus poisoned to become sugary. It occurred to me that this Nitrate of Uranium might prove a valuable homœopathic remedy in the treatment of diabetes in the human subject. Accordingly I had it prepared in trituration, from the first to the third; and, although I have had as yet but few opportunities of administering it in cases of diabetes-mellitus, I feel warranted, from its satisfactory effect in those few cases, in recommending those who have patients suffering from this disease, to make a trial of this remedy. Doses of two or three grains of the third trituration, administered morning and night, will in a short time reduce the quantity of urine passed to nearly a normal standard, and after a continued use the proportion of sugar is materially lessened. I have also employed it with the greatest success in cases of acute and chronic diuresis in children and grown people. It is peculiarly successful where the urine, from time to time, assumes an acrid, irritating nature. From the experience which I have thus far had with the Nitrate of Uranium, I am fully persuaded that it merits a careful and scientific proving, and any contribution toward such a proving, by those who feel inclined to test the remedy, will, without doubt, be gratefully welcomed by the profession."

---

* From the *North American Journal of Homœopathy*, No. xxxviii.

Dr. Bradford is deserving of credit for thus seizing upon the pathogenetic fact developed by Uranium poisoning, and testing and proving the value of the homœopathic law, by submitting it to the ordeal of clinical experiment. It is thus that an acute mind may seize upon a single symptom of a new and unproven remedy, and from it deduce valuable therapeutic results.

The Nitrate of Uranium, employed in the following cases, was procured through Halsey and King, of the Chicago pharmacy, and was prepared, as they informed me, by a talented and scientific German chemist.

Case 1.—The patient was an old gentleman, aged about sixty-five. I had treated him occasionally for three years for a form of diabetes, which I had every reason to believe was a real case of glycosuria, although, owing to a want of the necessary facilities for a correct examination of the urine, I could not say positively whether sugar appeared habitually in the discharges. (Let me here add that it is utterly impossible for a country practitioner—by this term I mean a physician in our towns and villages—to get the time to make those analyses of morbid discharges, so necessary to a perfectly correct diagnosis of disease. Such examinations would necessarily involve him in an expense for the procurement of apparatus, which could not well be borne. In these cases of diabetes which I shall report, although I may have been satisfied from my own tests of the correctness of my diagnosis, my tests might not come up to the standard of those required by modern analytical chemistry.)

The patient was of corpulent habit, not addicted to the use of ardent spirits, and a temperate eater. The disease has been alternately relieved and aggravated during the six years of its existence. Under my treatment he had been relieved at times by Cantharides, Cannabis, Tereb., Merc.-sol., Phos.-ac., and Arsenicum. His symptoms, at the time of the trial of the Nitrate of Uranium, were much the same as during the last few years, only much aggravated in every respect, and were as follows: Constantly increasing debility and emaciation; a dropsical condition of the legs; great pain and weariness in the lower extremities, accompanied by a distressing sensation of crawling or formication under the skin, as of thousands of worms. (This sensation I have often noticed as preceding or accompanying the access of dropsy of the legs or abdomen.) Clammy state of the mouth and tongue; the tongue coated with white fur; at the same time a sensation of dryness of the mouth and fauces, with excessive and uncontrollable thirst. Appetite variable—at times wanting, at times excessive. Dyspeptic symptoms prominent; such as sour eructations, burning and cramps in the stomach, and sensations of extreme faintness at the pit of the stomach. Bowels constipated, fæces pale, odorless, and dry. Almost constant desire to urinate, and voids large quantities at every emission; he states that he has voided as high as sixteen pints in one day and night. If he tries to retain the urine, severe pain in the bladder comes on. The urine is acrid and excoriating, has a sweetish odor, and he says a sweetish taste. His perspiration and breath have the same sickly sweet odor. Skin dry and harsh most of the time, although he perspires when sleeping or on unusual exercise. Pulse small and 90.

He was given Merc.-sol., 2, and Ars.-alb., 3, each thrice a day. These remedies had alleviated similar symptoms a few months before, but did not seem at this time to be of any benefit, except to diminish somewhat the extreme thirst.

After waiting one day, during which he had no medicine, he was given powders of Nitrate of Uranium, 1st dec., one grain each, to be taken three times a day. The effect of the remedy was prompt and decisive. The first night he had only to get up twelve times instead of twenty, as usual, and the urine was much less in quantity. The next day the urgency to void urine was diminished, and the next night he had to urinate but six times. Under its continued use all the symptoms became much ameliorated, until he informed me that the amount of urine voided was not much above normal, and his strength and health were much improved. He took the remedy about three weeks, decreasing the dose at the rate of one powder a day, during the time, so that the last week he took only one daily. Under the use of Phos. ac. and Helonin, 2, his health improved for several months, when he had another attack of a similar nature, which, however, gave way under the use of the same remedy for a week. Since that time he has had occasional attacks more or less severe, which are always relieved by the Uranium. At his advanced age, it is to be doubted whether a cure can be effected, but the marked beneficial effects of this remedy demonstrate its great utility as a palliative agent in such cases. I have tried very many medicines in similar cases but have never met with one which manifested such happy effects.

Case 2.—Was a son of the above, a strong and apparently healthy man of above forty. He first noticed a frequent and profuse urination about six months previously. This trouble gradually increased; about three months ago he began to be troubled with nocturnal urging to urinate, obliging him to get up several times after retiring. His present symptoms are:—A growing debility; a good deal of weakness in the lower extremities and back; considerable pain in the region of the kidneys; after a day's work the legs ache so that he cannot get to sleep till after midnight. Mouth dry, saliva tenacious, tongue coated white, good appetite, but his food causes much distress in the stomach. A constant sensation of faintness in the region of the stomach, even after a full meal; bowels constipated; urine profuse, frequent, and accompanied by burning and scalding; milky at times, at other times of a straw colour, and fœtid; thinks he voids nearly ten pints in twenty-four hours. He is dispirited, discouraged; has lost his usual liking for labour, and is inclined to be morose.

For a week he took Canth., 3, and Merc.-sol., 3, with no particular benefit, except to somewhat lessen the *ardor urinæ.* I then put ten grains of Nitrate of Uranium in half an ounce of distilled water, and ordered him to take ten drops four times a day.

The second night after commencing the remedy he was obliged to get up to urinate but once, and during the day the urine was much less in quantity. Improvement progressed steadily for a week, at which time the secretion had become nearly normal, and his general health was much improved. For the debility and some genital weakness I gave Phos. ac., 1, six drops three times a day, and six pellets of Nux, 3, at night, and continued the Uranium twice a day. At the expiration of three weeks he reported himself well, as well as he had been for many years.

Next to the Nitrate of Uranium, Phosphoric acid is the most important remedy in cases of diabetes. Not so much because of any specific relation which it bears to the essential nature and causes of the malady, but for its renovating and recuperative powers, in restoring nervous energy to the enfeebled organism. It is eminently *the* remedy, when, from loss of fluids, the solids of the body become wasted and nervous prostration supervenes. In such cases it must however be given in appreciable doses, because, *first,* It is given for conditions which simulate its secondary effects; and *second,* Because it is not so much for its dynamic, as its *nutritive* powers, in restoring the lost Phosphorus, which has escaped from the system.

Case 3.—A somewhat intemperate man, about forty-five years of age, a cooper by trade, had been afflicted with symptoms of diabetes for several months. He complained of increasing debility; sweats easily and during sleep; constant pain in the lumbar region, soreness in the region of the kidneys; severe aching, drawing weary pains in the legs in the after part of the day; they are so weak and heavy that he can hardly walk in the evening. (This distressing aching and weakness of the lower limbs seems to be decidedly pathognomonic of diabetes. It has been present in every case which has come under my observation.) Urination profuse, and sometimes painful; frequent, every hour or two; sometimes pale, often milky, with strong ammoniacal odor. His sleep was broken by the frequent calls to urinate. He states that he is almost completely *impotent*, and that the sexual power, which was strong before the diabetic symptoms appeared, is constantly decreasing. A cold perspiration collects on the penis and scrotum, both of which are relaxed and cold. He feels feverish in the afternoon, has great thirst, canine hunger from a gnawing and faintness in the stomach, abdomen feels bloated; and he is constipated. Some of the symptoms were relieved by the use of Cannabis, Caladium, and Merc. sol., but the diabetes and other most prominent symptoms remained the same. He was then put upon Nitrate of Uranium, second decimal trituration, three times a day. Improvement commenced immediately and continued until the urine became nearly normal in quantity and the symptoms in general were much ameliorated. One dose of the remedy, every evening, was ordered, and he was given Phos. ac., 1st dec. dil., ten drops in every six hours. Under its use the general and local debility was in time removed.

Case 4.—A delicate nervous female, subject to attacks of neuralgia and hysteria, was much troubled with sudden attacks of *diuresis*, accompanied by much prostration, followed in a day or two by an opposite state marked by some fever, much thirst, dryness of the mouth, headache, and *scanty*, *high-coloured* urine. This was undoubtedly a case of *diabetes-insipidus* (might it not be called *nervous diabetes?*). I had treated her with Digitalis, Pulsatilla, Gelseminum, Ignatia, and Belladonna, all of which are homœopathically indicated, but failed to afford more than palliative relief; they did not prevent the reactive symptoms from appearing. This patient called me in one day, and wished a prescription for one of her attacks, which she knew was about to set in, from certain premonitory symptoms. Being desirous of testing the Nitrate of Uranium in cases differing from true diabetes, I gave her six powders of the second, one to be taken every four hours. The diuresis was much less than was anticipated, and was *not* followed by the usual feverish reaction.

By this it would seem that the remedy was homœopathic not only to glycosuria, but to other forms of diabetes. It may prove useful in the *azoturia* of Willis, characterized by an excess of *urea*, although Colchicum, Verat. virid., Digitalis, and perhaps Gelseminum are more homœopathic. In the *anureous diuresis* or anazoturia of Willis, it will undoubtedly prove valuable. Case 2 may have been of that variety. In *albuminous diuresis* it may prove of some benefit, in connection with Canth., Digit., or Merc. cor. It may prove useful in *chylo-serous* urine—a curious and rare affection, of which I have seen *one* case, and cured it with Phosphoric acid, 1, in a few weeks, after a useless allopathic treatment of months.

An Allopathic Account of the Homœopathic Congress.

On the 10th instant the annual Congress of the Central Union of German homœopaths, which was founded as far back as 1829, on the occasion of Hahnemann's Doctor's Jubilee, took place here. The proceedings of this year's congress were not of a very remarkable kind. The chair was taken by Dr. Müller, who gave a sketch of the doings of previous homœopathic congresses; after which Dr. Meyer gave a report on the Homœopathic Clinique of this city, in which 941 patients have been treated during the last year, amongst whom were 742 cured, 115 improved, and 7 deaths. Since the existence of this clinique, altogether 26,168 patients have been treated in it, according to homœopathic principles. Nürnberg has been chosen by acclamation as the seat of next year's congress, and Dr. Grauvogel has been entrusted with the management of it. Fame is silent on Drs. Meyer and Müller, who played so important a part in the proceedings of the congress just come to an end; but Dr. Grauvogel has made himself remarkable by a pamphlet lately published by him under the title, *The Homœopathic Law of Similarity: an Open Letter to Baron von Liebig.* In this very amusing little book the author, who was not called Grauvogel (Grey-bird) for nothing, displays the mite of wisdom conferred on him by his godmother Minerva. He leads Baron von Liebig, as well as Professor Virchow, with the most perfect *sang froid ad absurdum*, and peremptorily challenges these gentlemen to refute his arguments, if they can! No doubt homœopathy will again come victorious out of this (one-sided) fight, since Baron von Liebig, as well as Professor Virchow, are of opinion that it would be dangerous and foolhardy to enter the lists against the irresistible Grauvogel who may, therefore, justly claim the champion's belt. *Palmam qui meruit ferat.—Medical Times and Gazette,* Sept. 28, 1861.

Homœopathy in Spain.

H.R.H. the Infanta Doña Maria de la Concepcion sank under her severe illness on the 21st October, at a quarter to three p.m. In the latter stage of her malady, when the cerebral structures had already undergone serious alterations in the course of the disease, which, according to the opinion of the Court physicians, scarcely allowed any hope from the resources of art, her Majesty, inspired by maternal affection, decided on calling in the aid of the homœopathic system, and consigned the treatment of the august child to the care of Dr. Joaquin de Hysern. On undertaking the case, Dr. Hysern had a consultation with Dr. José Nuñez, Dr. Andres Merino, Dr. Juan de Lartega, and Dr. Bernardo Sacristan. They all agreed in considering the state of the princess to be very serious, and, indeed, almost beyond the reach of art. Dr. Hysern, assisted by Dr. Rivas, was most assiduous in his attention on the august patient; but all the distinguished talent, the skill, and experience of our respectable countryman were destined to fail, in consequence of the intrinsic gravity of the disease, its advanced stage, and the consequent exhaustion of the strength of the vital reaction during so many months of suffering.

We deplore sincerely the misfortune that has befallen the royal family, and all the more because we have the firm conviction that homœopathy possesses gentle and effectual means for modifying, when employed early enough, the morbid diatheses of children before they have effected profound changes in the organs essential to life.—*El Criterio Medico, Oct.* 25, 1861.

Effects of Upas, Tanghinia, Digitalis, and Hellebore.

A series of experiments made upon frogs, with the poisons (upas antiar, tanghinia venenifera, digitalis, and green hellebore) either administered by the mouth or inserted under the skin in various parts, give the following results, which were constantly the same:

The heart's action was arrested, although the nervous irritability and voluntary muscular power of the animal persisted for a considerable time. The average duration of the heart's action after the exhibition of the poison was, in the case of the upas, tanghinia, and hellebore, ten minutes; and in that of digitaline, from ten to twenty. The action of the ventricle in the frog was invariably found to be arrested in systole; it was strongly contracted, pale, and quite empty, whilst the auricle was distended and gorged with blood. The contractions of the heart were sometimes accelerated at the commencement of the experiment, at other times they were less frequent from the beginning. The paralysis, or rather arrest of motion, in the case of the ventricle, is shewn after a certain period in the diminution of the pulsations; that of the auricle is gradual and almost imperceptible, its contractions outliving those of the ventricle by some minutes. MM. Dybrowski and Pelikan have proved by experiment that these poisons exercise their deleterious influence upon the heart independently of the cerebro-spinal system, and that in those animals in which the medulla oblongata and pneumo-gastric nerves had been previously destroyed or divided, the toxical effects of these agents were equally manifest.—(*Lancet.*)

Poisoning by Strychnia.

(From the *Lancet.*)

I was sent for on the 22nd of January last, at half-past one p.m., by Mr. Yarrow, to see a person, and on my arrival I found a woman, aged twenty-eight, in the following state: lying on her back on the floor, quite sensible; arms and legs stretched out to their fullest extent; hands clenched; toes flexed; legs close together; body in a state of opisthotonos. Countenance livid and anxious; eyes starting from their sockets and fixed, pupils widely dilated, conjunctiva highly injected, teeth firmly clenched. Breathing irregular, and at times almost ceasing; skin hot, bathed in perspiration, and steaming; pulse rapid and scarcely perceptible. The spasms relaxed at times, but did not entirely cease for one minute; and on the slightest touch of the body or legs, or on attempting to give her anything to drink, she immediately would cry out, "my legs! my legs! hold me! hold me!" and then utter a shriek. The head would then become drawn back, arms and legs extended, hands clenched, and the body in a state of opisthotonos; face and head a deep purple; foaming at the mouth; teeth clenched; eyes protruding and fixed; heart palpitating violently; and the breathing irregular, and as if drawn through a reed. No action of the bowels or bladder took place.

Arsenic inhalation in Bronchitis.

M. Trousseau frequently orders the inhalation of the fumes of arsenious acid, in chronic bronchitis, by means of cigarettes, each charged with one-fifth of a grain of arsenic, and three or four of them being used during the day, the smoke being inspired as deeply as possible. The plan seems to be followed by mnch temporary relief.

The Prince Consort and his Treatment.

THE disease that carried off the illustrious Consort of Her Majesty is variously stated to have been gastric fever and typhoid fever; probably it was gastric fever with a typhoid type. We know nothing of the treatment pursued by his medical attendants, but as he was latterly attended by four simultaneously, we may suppose that the actual treatment adopted was a compromise among the four favourite methods of the doctors; for in the treatment of this, as of most acute and chronic diseases, by allopaths, we may safely say, *quot capita, tot sententiæ.* Under this heavy infliction of medical advice, the Royal patient had hardly a chance of recovery; for it is scarcely to be supposed that an intelligent or intelligible plan of treatment would be pursued under the direction of so many, and perhaps such opposite opinions. The *Lancet* and the *Medical Times* each furnish us with articles to prove that Prince Albert was just the most unfavourable subject for a fever of the sort, and that no surprise need be felt at his sinking under it; but that it would have been astonishing if he had recovered. We confess we are dull enough not to perceive how a man in the prime of life, of vigorous and athletic frame, a moderate liver, and with every thing conducive to health around him, should be just the most unlikely person to recover from typhoid fever, from which so many persons, much less favourably situated, recover readily; but we suppose it would never do for the *Lancet* or *Medical Times* to utter a suspicion that the treatment of four eminent English doctors was not the very best that could possibly be devised. We remember when Count Cavour died of a similar disease, these same journals set up a howl at the practice pursued in his case, and plainly insinuated that he had fallen a victim to the erroneous treatment of his doctors; and that if he had only had the advantage of being attended by some sensible, English doctor, he would certainly ("in all human probability," we think the conventional phrase is), have recovered. It was little to be expected that such an early opportunity would have been offered to the public of comparing the results of rational English practice with those of irrational Italian practice. We doubt not the *Lancet* would have lustily shouted "Murder!" had Prince Albert's death occurred under homœopathic treatment; but we can hardly imagine homœopathy installed in the palace—and we cannot imagine the Prince's death occurring under its mild and efficacious medication.

OBITUARY.

Dr. Atkin of Hull.

It is with the most unfeigned sorrow that we have to record the death of our esteemed fellow-editor in this journal, Dr. George Atkin, which occurred at Hull on the 13th of December last, after a tedious and painful illness. The disease of which he died was a large carbuncle on the back of the neck, which seemed to be going on favourably towards recovery, but violent hæmorrhage set in and proved too much for a constitution already enfeebled by gout and diabetes, and he died calmly and tranquilly on the fifteenth day after the first appearance of the carbuncle.

Dr. Atkin was the son of a presbyterian minister of Northumberland, and before embracing homœopathy and settling down at Hull as a practitioner, had pursued a useful career in Edinburgh as a medical tutor. For this occupation he was well qualified by his scientific acquirements and his thorough acquaintance with all the departments of medicine. On Dr. Russell's retirement from the editorship, we were fortunate in being able to secure his valuable services for the Journal, and our columns have been frequently enriched by editorial articles and translations from his pen. Indeed, one of the translations in this very number is by him, and he had not time to look over the proof sheet ere he was hurried away from his earthly career at the early age of forty-six.

Dr. Atkin's loss will be felt not by us alone but by all his numerous friends and by the homœopathists of Britain generally. His wise, calm, and judicious advice on many important occasions has been of infinite service in allaying the irritations and disputes that will sometimes arise among professional brethren. He was a universal favourite, and his genial wit, his perfect good-humour, his singular modesty, and his sage advice, will long be remembered and missed by those who were so happy as to enjoy his friendship. To ourselves his death is a heavy blow, the full extent of which we are hardly yet able to realise when the ink is scarcely dry on the last communication we received from him.

Although the exigencies of a large practice and bodily infirmity prevented Dr. Atkin from devoting as much time to literary pursuits as would have been desirable in one of such superior intellectual qualifications, still he has left behind him no inconsiderable records of his talents and diligence. Besides numerous papers in this Journal, he gave us the *Homœopathic Directory*, and assisted in the authorship of the *New Repertory*.

He has left a widow and six children to deplore his premature decease.

BOOKS RECEIVED.

Homœopathy and its Opponents; *a Reply to Sir B. Brodie*, by Dr. Drury. London, Leath, 1861.

A Practical Reply to Sir B. Brodie, by J. Moore, V.S. London, Epps, 1861.

Has Sir B. Brodie spoken the Truth about Homœopathy? by J. H. Smith, M.R.C. S. London, Tresidder, 1861.

Homœopathy and Sir B. Brodie, by C. H. Marston, M.D. Bath, Capper, 1861.

A Letter to Sir B. C. Brodie, by W. Sharp, M.D. London, Turner, 1861.

Hull's Jahr, edited by Dr. Snelling. *Repertory*. New York, Radde, 1862.

United States Journal of Homœopathy.

North American Journal of Homœopathy.

Art Médical.

Bulletin de la Société Médicale Homœopathique.

Monthly Homœopathic Review.

El Criterio Medico.

Remarks on Homœopathy, by Edwin Lee, M.D. London, Churchill, 1861.

Remarks on the Narrow Limits of Rational Medicine, by J. S. Bushnan, M.D. London, Churchill, 1861.

Printed by W. Davy & Son, 8, Gilbert-street, Oxford-street, W.

THE
BRITISH JOURNAL
OF
HOMŒOPATHY.

CASES OF POISONING BY BELLADONNA, WITH COMMENTARIES.

By Richard Hughes, M.R.C.S., L.R.C.P.—Ed. (Exam).

(*Continued from page* 87.)

Case X.

My tenth case is quoted from the *Lancet* (date not given) in the *North American Journal of Homœopathy*, vol. i., p. 376. It is reported by a Mr. Edwards.

"Miss G., aged 34, unmarried, of slight figure, fair complexion, and nervous temperament, has been an invalid for many years; is the subject of lateral curvature of the dorsal vertebræ, for which she has on several occasions undergone a good deal of professional treatment. Such are the physical characteristics of the individual I was called to see under the following circumstances:—

"January 8th, at 8 o'clock a.m., I received a verbal message from her sister—accompanied with an ounce-and-a-half phial, labelled 'Embrocation of Belladonna,'—to the effect that Miss G. had just swallowed the contents of the bottle, instead of an aperient that she intended to take. Having an emetic draught close at hand, in my dressing-room, I sent it down, requesting that it might be administered immediately, and that I would call upon her as soon as I could. In about half an hour I arrived at the house, and found my patient stretched upon a couch, and presenting the following appearances:—Head bent forward upon the chest, speechless, eyes closed, breathing heavy and stertorous, pupils widely dilated; hands and feet cold; pulse scarcely perceptible, jaws firmly fixed (1). At this time there was not the least convulsive action, but a constant disposition to raise the hands to the face. Notwithstanding she had taken the emetic, together with copious draughts of mustard and water, no vomiting had taken place. I lost no time in directing my servant to procure the stomach-pump, and also the assistance of my friend, Dr. Topham. In the mean time I roused the patient by having her raised up and shaken, upon which she appeared conscious when spoken to, but had lost all power of answering any question addressed to her (2). Her teeth being closed, we had great difficulty in getting any liquid into her mouth, nor was she capable of swallowing it when we did (2). By compressing her nostrils and forcing her to breathe through her mouth, the teeth became sufficiently separated to enable me to introduce a long feather into the back of the fauces; this soon produced copious vomiting of a large quantity of a green-coloured fluid, strongly impregnated with camphor. This operation was repeated two or three times, each one producing more or less vomiting of similar matter. Hot water was applied to her feet, friction to her hands, and sal-volatile to her nose. The same uncontrollable disposition to heavy comatose sleep still existed. At ten o'clock Dr. Topham arrived with the stomach-pump, which we immediately proceeded to use; but from the rigid closure of the jaws, we had great difficulty in separating them sufficiently to adjust the gag, and pass the œsophagus tube into the stomach. After some trouble this was effected, and about a pint and a half of warm water was injected, and then carefully withdrawn; it was of a greenish hue, and strongly impregnated with camphor. We continued to wash out the stomach with warm water and slight quantities of aromatic spirit of ammonia, until the fluid withdrawn was quite colourless and devoid of the smell of camphor. We then threw into the stomach a breakfast-cup full of strong coffee, to which had been added three tea-spoonsful of aromatic spirit of ammonia, and withdrew the tube. The pulse had risen considerably, and the countenance had assumed a more natural appearance; a mustard poultice was applied to the epigastrium; she was put into a warm bed, with hot flannels to her feet, and allowed to doze.

"The following facts were elicited from her sister:—She says that at half-past seven A.M., she was aroused by a loud knocking at her bed-room door, on opening which, she saw Miss G. in her dressinggown, presenting an appearance of great alarm and anxiety. She informed her what had happened, and that the medical man who prescribed the embrocation had cautioned her to be careful, as the smallest quantity swallowed would be fatal. At this time she only complained of 'a sensation of madness in her brain.' She was able to speak and swallow perfectly well until a few minutes before my arrival, when she appeared to lose the power of executing both these acts quite suddenly, and fell into the comatose condition in which I found her (2).

"Twelve o'clock. There seemed to be a gradual improvement in her breathing, circulation, and general appearance; there was a slight twitching of the muscles of the right side of the face; not able to swallow; but we fancied she, in answer to a question put to her, said 'Yes.' Five P.M. Symptoms remained much the same as in last report; no evacuation from bladder or bowels; pupils widely dilated and immoveable; has slept a good deal; skin warm, pulse 112, feeble; still unable to speak or swallow. Nine P.M. Countenance more natural. There was constant nictitation (qy.? 'jactitation') and picking at the sheets; if touched by any person, she jumped as if in great alarm. This I observed to occur whenever her hair was removed from her face, or when I felt her pulse. When thoroughly roused she answered in monosyllables, and apparently attempted to form connected expressions, but they were unintelligible; pupils still greatly dilated, nor did they contract when a lighted candle was placed before the eyes; pulse 120; no action from bladder or bowels. On asking her if her throat was sore, she replied, 'Dry;' on asking her if she could suck an orange, she replied, 'Yes.' I therefore had some orange-juice squeezed into a glass, and by means of a teaspoon, got her to swallow perhaps half-an-ounce; but this was accomplished with great difficulty. Ordered an injection of a pint of gruel with half-an-ounce of oil of turpentine and an ounce of castor oil to be administered directly, and, when able to swallow, the following mixture:—Spirit of nitric ether, three drachms; compound tincture of cardamoms, two drachms; camphor mixture, five ounces and a half; mix. To take an ounce every three hours.

"January 9th, eleven A.M. Has passed a restless night, sleep being much disturbed by frightful dreams; complains of intense pain in the head (3), and says that it feels enormously large, as also does her throat; is much annoyed by a constant sensation of trembling in all the muscles of the body; bowels were moved after the injection, and some urine passed at the same time, none since; great intolerance of light and noise (3); tongue rather dark, but moist; skin natural; complains of thirst; pulse 88; pupils as dilated as ever. She says she can see me distinctly for a moment only, and then my face becomes horribly distorted. The power of speech seemed to return about twelve or one o'clock, at which time she was very delirious, and would persist that there were very horrid monsters all over the room staring at her. Ordered eight leeches to the temples; effervescent mixture every three hours; and two grains of calomel, with seven of extract of colocynth, to be taken directly. She says she remembers my coming to her yesterday morning, but was unconscious of everything afterwards until the evening.

"January 10th. Better; head much relieved by the leeches; passed a restless night, her sleep, she says, being disturbed by 'miserable phantoms;' bowels have been relieved two or three times, and urine has been excreted copiously (4); skin moist; pulse 100; slight thirst; pupils still unaffected by light; complains of the trembling of her muscles, but has lost the sensation of her head and throat being enlarged. Continue effervescing mixture, and take some beef tea.

"January 11th. Improved in every respect; pupils not so widely dilated, are now slightly affected by light. To sit up on the sofa, take nourishing diet, and tonic medicine.

"From the above date gradual amendment took place, and the power of vision slowly returned. It was, however, some days before she was able to walk, even with the assistance of a person on each side of her; this inability to walk did not arise from weakness, but she appeared to have lost all power of controlling the action of her legs (5).

"*Remarks.*—This case is interesting, inasmuch as we possess but few opportunities of witnessing and recording the symptoms arising from the exhibition of poisonous doses of Belladonna. The quantity taken, as I aftewards ascertained from the medical man who prescribed the embrocation, was one drachm of extract of Belladonna in an ounce-and-a-half of soap liniment. Coma preceded any convulsive action by some hours, save the twitching of the facial muscles. The pneumogastric nerves were early influenced by the poison, as evidenced by the difficulty of articulation (2) and deglutition. Orfila found that Belladonna given to dogs frequently produced weakness of the posterior limbs. This effect was most palpable in the case before us, my patient being unable to control the actions of her legs for some days after all the other symptoms had quite subsided."

On this case I will make the following remarks:—

(1). The trismus is a rare symptom. It probably depends on the irritation of the medulla oblongata, propagating itself along the motor branch of the fifth.

(2). From irritation of the medulla, too, proceeds the impairment of deglutition and articulation noticed in the case. Mr. Edwards is wrong in attributing both these to an affection of the pneumogastric nerve: it is the hypoglossal upon whose integrity depends the right performance of the act of articulation. But both these nerves originate in the medulla oblongata.

(3). The symptoms of the second day (January 9th) are clearly those of inflammatory irritation of the cerebrum. The beneficial effect of the leeches is noticeable in this respect.

(4). The primary suppression and secondary copious flow of urine confirms the view of the action of Belladonna on the urinary organs stated in the Notes to Case II.

(5). Still more striking is the support afforded by this case to the theory of the Belladonna-paralysis enunciated in the Notes to Case I. The reporter himself observes that it is not true motor paralysis, but a want of due controlling power. It is almost confined to the lower limbs.

Case XI.

Dr. Teschenmacher relates the following narrative of six persons poisoned by Belladonna. His account is translated from Casper's *Wochenschrift,* No. 31, 1843, in the *British Journal of Homœopathy,* vol. vi., p. 430.

"A mother, with her four children and a maid-servant, ate one evening of the ripe berries of this plant: the mother and maid had each eaten about six bunches. In the course of a few hours the symptoms of poisoning manifested themselves in all of them: these were nausea, double vision, sense of constriction at the throat (1), giddiness, and sleepiness. On the following day, fifteen hours after the poison had been taken, Dr. T. saw the patients. The operation of the poison displayed itself in four degrees. The first and slightest was in the maid-servant, who produced vomiting in herself by drinking warm water and tickling her throat. She complained only of headache and weariness. The pupils were enlarged, the face red, and the pulse somewhat quickened. The second degree was observed in two of the girls, one of whom was four, and the other eight years old. It displayed itself in a tottering gait, incoherent talk, protruding eyes, dilated pupils, staring look, very quick pulse, and increased temperature of the skin. The third degree was exhibited by the mother. She fell into a delirious state in the morning, attempted to bite and strike her attendants, broke into fits of laughter, and gnashed her teeth. The head was hot, the face red, the look wild and fierce, the tongue dry, the abdomen swollen, the pulse small and frequent. The fourth degree showed itself in the two boys, the one of whom was two-and-a-half, and the other six years old. They lay in a soporose condition, with violent convulsions of the extremities: the head was very hot, the face red, the eyes protruding. They were also affected with a croupy cough (1). The cases were all treated with emetics, purgatives, and stimulants; and the patients recovered in the course of twenty-four hours."

(1). See Note (5) on Case II.

Case XII.

A series of ten cases of poisoning by Belladonna berries are recorded by Mr. Seaton, of Leeds, in the *Medical Times* and *Gazette*, of December 3rd, 1859. They are extracted at length in the *British Journal of Homœopathy* for January, 1860. Their main interest lies in the great success attendant upon the use of Opium as an antidote to the effects of the Belladonna—a practice suggested by Mr. Benjamin Bell, of Edinburgh (*Edinburgh Medical Journal,* July 1858), on the ground of their antagonistic effects on the iris—Opium causing contraction, and Belladonna dilatation of the pupil. The cases are all so much alike, that I shall content myself with quoting the account of the first of the series, and Mr. Seaton's remarks upon the whole.

"J. W., aged 23. On September 12th, 1858, at a quarter-past seven P.M., took ten berries; at eight P.M. complained of dryness of the throat, and great difficulty in swallowing, followed by indistinctness of vision, and pain in the head and eyeballs, which felt as if starting from their sockets. These symptoms were followed by delirium, characterized by intense wakefulness and vivacity, and a want of coherency in his ideas and speech. At half-past ten he took an emetic, which induced free vomiting, notwithstanding which the symptoms persisted. At two A.M. on the 13th, he was ordered a dose of castor oil, and Tinct. Opii. gtt. vij., every four hours. At five A.M. slept for a short time, but on awaking was still delirious; took the medicine every two hours up till two P.M., when he fell asleep, and awoke two hours afterwards quite collected. The indistinctness of vision in this, as in the other cases, continued several days. The pupils which, before sleep, were widely dilated, on sleep being obtained, became contracted to the ordinary size."

Mr. Seaton's remarks are as follows:—

"The first symptom appears to have been dryness of the mouth and throat; next, indistinctness of vision and dilated pupil; and afterwards, in the more severe cases, delirium supervened. The indistinctness of vision was the most persistent symptom; in all the cases it existed in a greater or less degree for several days, and in one (a boy) the vision continues defective up to the present time. The delirium was of a busy, restless, vivid character, but generally rather pleasing than otherwise. The patients appeared to think that they were pursuing their ordinary occupations; one boy appeared eager in flying a kite; another pulled tables and chairs about, thinking he was working in a coal-pit; and a woman appeared to be remarkably busy with her ordinary household duties. All their movements were of a quick, excited character, strikingly resembling delirium tremens. There was no very marked vascular excitement; the skin was, in most of the cases, moderately cool, and the pulse rapid, but without power."

CASE XIII.

The following case is recorded by Dr. William Jenner, in the *Medical Times and Gazette* for November 22, 1856. The symptoms being produced by the external application of the drug, exhibit indubitably its specific action:—

"Mr. T., having suffered for some time from pain in the back, palpitation, and dyspeptic symptoms, consulted, on October 4th, a physician, who prescribed nitro-muriatic acid, and a belladonna plaster, nine inches by six, for the back. The plaster produced a crop of pustules, though the patient was not aware of it.

"At ten A.M., October 14th, he removed the old plaster, and applied on the same part, now the seat of the pustules and of a few minute ulcers, a new one of like size. At this time he felt particularly well. Soon after ten he left home. Between eleven and twelve, while in the city, he noticed that his tongue and throat were extremely dry, and that his tongue was covered with a white, clammy fur, which he could pull off in strings. The sense of dryness and discomfort of the mouth and throat were most distressing, and such as to impede articulation. At the same time he was affected with extreme desire to micturate, though he could pass only a few drops of perfectly colourless urine. From this time, till he lost consciousness, his desire to pass urine was constant; wherever he could retire he did so, but succeeded in expelling from the bladder, with considerable effort, only a few drops of colourless fluid. The sense of dryness of the throat and tongue continued to increase, and he soon began to feel a little confused in his head, so that he was fearful people would think he had been drinking. He transacted all his business correctly, though at his office, where he was between two and three o'clock, it was observed that there was something strange in his manner and speech. Here he drank some water, which seemed even to increase his sense of dryness of the tongue. He drove himself home, which he reached about three o'clock. His mind by this time was a good deal confused; and, feeling himself unable to pay his men, he placed the money he had just drawn from the bank in safety in his own room. Soon after he had, five or six times in quick succession, convulsive catchings of the extremities, face, and trunk—such, he says, as animals have when bitten by venomous serpents.* Then his mind began to ramble, and his ordinary medical attendant, Mr. Knaggs, of Kentish Town, was sent for. When Mr. Knaggs arrived, Mr. T. was very delirious, but still recognized him.

"I saw the patient about six P.M., at Mr. Knaggs' request. We found Mr. T. much worse than when Mr. Knaggs had left him. He was standing by the bedside, supported by two men; he seemed to exercise very little control over the lower extremities, and to have very little power in them. It was clear that he must have fallen to the ground had he been left without support. He leaned a little to the right, as though the right side were weaker than the left; but those about him told us that shortly before he had inclined to the left side. He was led, at my request, to the opposite side of the room; both legs dragged, but neither one more than the other. He was restless in the extreme, and would not lie down for an instant; his hands were in constant motion; he seemed as if he were busy moving some light objects. Occasionally, he raised his feet alternately some distance from the ground, as one does in ascending stairs. He moved his mouth incessantly, evidently with the idea that he was talking; but the sounds that he uttered were inarticulate, and altogether unintelligible. He paid no attention to those about him; in fact, seemed unconscious of their presence, only now and then, when addressed in a loud voice, he stared at the speaker for an instant, like one suddenly aroused from a sound sleep. Once he laughed, when bid to put out his tongue, and in the most rapid manner protruded it, and then as quickly withdrew it. There was a little deviation of the face to the left, though not more than is natural to many adults, and is, I think, proper to Mr. T. The pupils were very large; when a candle approached them they acted equally, but imperfectly and sluggishly. The head was warm, but not warmer than the surface generally; the face was a little flushed. There was no throbbing of the vessels of the neck or head. The pulse was between 80 and 90, and regular. The heart's action was tolerably strong; the left ventricle was hypertrophied, and a loud, double endocardial murmur was heard at the base.

---

* Mr. T. is employed in the Zoological Gardens.

"The history of the symptoms before Mr. Knaggs saw the patient was only obtained from him after his perfect recovery, and so some doubt was at first entertained as to the nature of the case. Still, as the symptoms agreed with no disease of the brain or meninges with which I was acquainted, while the majority were such as occur in poisoning by Belladonna, we thought it highly probable that they were due to absorption of Belladonna by the skin. The plaster was accordingly removed at once, and the surface greased and washed, and clean linen put on, some of the Belladonna having passed on to the shirt. A blister was applied to the back of the neck, and an aperient, with five grains of Sesquicarbonate of Ammonia, directed to be given every two hours. The first dose of the Ammonia produced such decided improvement, that Mr. Knaggs gave a second dose in half-an-hour; this was followed almost instantly by perfect consciousness.

"The next morning Mr. T. was able to arrange his accounts, though he had not slept for an instant. He had no sleep the following night, and his memory for two or three days was very defective. He does not remember anything that passed between Mr. Knaggs' first visit (and even of that he has only a dim recollection) and his return to consciousness, about half-past ten or eleven P.M. He is now quite well, with the exception of slight dimness of vision, and dilatation of the pupils, and a consciousness of a little impairment of memory. There does not seem to have been any eruption of the skin, excepting the pustules, nor any itching on the surface."

CASE XIV.

Seven cases of poisoning by Belladonna came under Dr. Pereira's notice at the London Hospital. In the later editions of his Materia Medica, he sums up the symptoms observed by him in the following words:—

"1st. Dryness of the fauces, causing excessive difficulty of swallowing and alteration of the voice.

"2nd. Scarlet eruption on the arms and legs.

"3rd. Dilatation of the pupil, with presbyopia.

"4th. Delirium and phantasms. The delirium was of the cheerful or wild sort, amounting, in some cases, to actual frenzy. In some of the patients it subsided into a sort of sleep, attended with pleasant dreams, which provoked laughter. The delirium was attended with phantasms, and, in this respect, resembled that caused by alcohol; but the mind did not run on cats, rats, and mice, as in the case of drunkards. Sometimes the phantasms appeared to be in the air, and various attempts were made to catch them or chase them with the hands; at other times they were supposed to be on the bed. One patient (a woman) fancied the sheets were covered with cucumbers.

"5th. Convulsions, paralysis, sopor, or coma. In most of the cases, the power of the will over the muscles was so far disordered, that the muscular movements were somewhat irregular, causing a kind of staggering or jerkings; but actual convulsions were not general. There was sopor, which terminated in coma, with a weakened or paralytic condition of the muscles."

The chorea-like character of the disordered muscular movements of Belladonna is plainly described in the fifth paragraph.

CASE XV.

Dr. Taylor, in his work on Poisons, records the following case, which occurred in Guy's Hospital, in August 1846:—

"A boy, aged 14, ate, soon after breakfast, about thirty of the berries, which he had bought in the street. In about three hours it appeared to him as if his face had become swollen, his throat became hot and dry, vision impaired, objects appeared double, and they seemed to revolve and run backwards. His hands and face were flushed, and his eyelids tumid; there were occasional flashes of light before his eyes. He tried to eat, but could not swallow on account of the state of his throat. In endeavouring to walk home, he stumbled and staggered; and he felt giddy whenever he attempted to raise his head. His parents thought him intoxicated; he was incoherent, frequently counted his money, and did not know the silver from the copper coin. His eyes had a fixed, brilliant, and dazzling gaze; he could neither hear nor speak plainly, and there was great thirst: he caught at imaginary objects in the air, and seemed to have lost all knowledge of distance. His fingers were in constant motion: there was headache, but neither vomiting nor purging. He did not reach the hospital until nine hours had elapsed; and the symptoms were then much the same as those above described. He attempted to get out of bed with a reeling, drunken motion; his speech was thick and indistinct. The pupils were so strongly dilated, that there was merely a ring of iris, and the eyes were quite insensible to light. The eyelids did not close when the hand was passed suddenly before them. He had evidently lost the power of vision, although he stared fixedly at objects as if he saw them. The nerves of common sensation were unaffected. When placed on his legs he could not stand. The pulse was 90, feeble, and compressible; his mouth was in constant motion, as if he were eating something. His bladder was full of urine on admission. He continued in this state for two days, being occasionally conscious; when, by a free evacuation of the bowels, some small seeds were passed. These were examined and identified as the seeds of Belladonna. The boy gradually recovered, and left the hospital on the sixth day after his admission. The progress of recovery was indicated by the state of the pupils, which had then only acquired their natural size and power of contraction."

CASE XVI.

The following case appears among the proceedings of the Meeting of the Provincial Medical and Surgical Association, held at Bath, in 1848. The reporter is a Mr. Jackson:—

"T. G., aged 75, a man of spare habit, had a box of extract of Belladonna, containing five drachms, given him with a view to its being spread as a plaster for his chest. The poor old man mistook the verbal directions, and took a portion of the extract. The dose taken was represented, by a female who was present at the time, as so small as not to exceed four or five grains. Whether this person was mistaken as to the quantity taken is uncertain. This occurred at about six in the evening. In a short time the symptoms became manifest, and at seven he had lost the power of articulation, and presented the general appearance of a person seized with slight paralysis. He was quite unable to stand or walk, and his limbs were in a state of tremor and agitation. He became cold, and nearly approaching a state of insensibility; the eyes had a wild, vacant appearance; the respiration was laborious, and occasionally stertorous; and he moved the body almost incessantly backward and foward, as if his inward suffering (not otherwise expressed) was very great. At ten o'clock the temperature of the body had increased, face swollen, mouth and throat extremely dry, and insensibility more complete. Castor oil had been given, but was rejected. One of the attendants stated that nausea prevailed at various times. No active delirium was manifested, but from the general appearance of the eye and features, no doubt that peculiar derangement existed, subdued partially by the pressure on the cerebral organ, so as more nearly to approach the character of apoplexy. At six the following morning he appeared considerably exhausted, but had still sufficient power to take some wine and water, and for the first time indistinctly uttered a few words. His mouth and fauces at this time (to use the words of an attendant) were as dry as a chip. His face was so much swollen and red, as quite to chance his usual appearance. His daughter remarked that the wrinkles of old age had disappeared, and he appeared much fatter than usual. Between nine and ten in the morning he appeared quite exhausted, and he died at eleven, being seventeen hours after taking the extract.

"The post-mortem examination showed the presence of great congestion of the brain, particularly at the base, and of the medulla oblongata, together with considerable (serous?) effusion. There was also congestion of the lungs, and dark discolouration of a portion of the great curvature of the stomach.

"The points of interest Mr. Jackson considered to be—the rapid accession of the symptoms, particularly those affecting the voice; their resemblance, in some respects, to the early progress of congestive fever; and the fact that the chief action of the Belladonna was on the medulla oblongata."

CASE XVII.

I do not propose to report at length any more cases of Belladonna poisoning, but shall conclude the series with some isolated notes selected from various sources, with a view to illustrate some of its physiological effects.

The dryness of the throat is an almost constant symptom in the cases of poisoning recorded. In two instances it is said to have been hot as well as dry, but no visual examination seems to have been made to ascertain the physical condition of the parts. From other sources, then, some account of this must be given. In a case of poisoning by Atropine, recorded in the *North American Journal of Homœopathy*, vol. i. p. 116, it is stated that the patient complained next day of "*sore throat*." In another case, in vol. iv. of the same Journal, p. 122, it is said "he felt great soreness in the throat, which looked *very red* about the tonsils and palate. The soreness extended to the ears." And in Dr. Black's paper on Belladonna in Scarlet Fever, in the 1st volume of the *British Journal of Homœopathy*, a case of poisoning is mentioned as reported by Mr. Wade, in the *London Medical and Physical Journal*, April 1827, where, from the external application of Belladonna, "the mucous membrane from the posterior third of the palate, as far down as could be seen, was of a deep crimson colour, and the tonsils were much enlarged."

Again, Christison speaks of "redness of the throat" in one case, and of "aphthous inflammation" of this part in two others.

I think that from these facts it is evident, that the dry mouth and throat of Belladonna does not result from an anæmic condition of these parts, whether from pneumogastric depression or sympathetic excitation; but is the arrest of secretion which accompanies congestion and inflammation, and that consequently Belladonna is tissue-irritant to this portion of the alimentary mucous membrane. Its therapeutic value in the various forms of angina is well known.

CASE XVIII.

The symptoms produced by Belladonna in the urinary organs are very constant and characteristic. They usually consist of frequent urging to micturate, with either a very great diminution (when large doses have been taken) of the urinary secretion, or more rarely (under the influence of comparatively small doses) a considerable increase in the same. Sometimes the latter symptom follows upon the former, as in Case X. That these phenomena, like those of the throat, depend upon a specific irritation of the urinary mucous membrane, appears when we investigate the ultimate effects of the drug in this sphere. Christison quotes one from Wibmer, in which the patient "had violent strangury towards the close," and another from M. Jolly, where there was "violent strangury with suppression of urine and bloody micturition." Belladonna is much used by the old school in irritable bladder, and is considered little short of a specific in enuresis.

CASE XIX.

The power of Belladonna to cause active determination of blood to the head is well seen in Cases II, III, X, XI, XVI. The following case, quoted by Dr. Taylor (*Op. cit.*) from a German periodical, exhibits this symptom in its fullest degree:

> "A man, aged 34, ate about fifty berries to relieve his thirst. He immediately perceived a burning sensation in the throat and feeling of stupefaction. He staggered home and went to bed. In the evening he was seized with such violent delirium that it required three men to confine him. His face was livid; his eyes injected and protruding; the pupils strongly dilated; *the carotid arteries pulsating most violently;* a full, hard, and frequent pulse, and loss of power to swallow. He was bled, and in about half-an-hour was

able to swallow an emetic, which brought away a violet-blue or purple liquid. Purgative medicines and enemata were employed, and he recovered his consciousness in about twelve hours."

In the majority of cases where a post-mortem examination has been obtained, a highly hyperæmic state of the encephalic mass has been observed.

Here, too, the hypothesis of a specific irritation of this portion of the nervous centres supplies the best explanation of the phenomena. The delirium is the primary effect of this irritation, and the determination of blood the subsequent result of its continued influence.

CASE XX.

A great many experiments have been made by Lusanna to ascertain the physiological action of Atropine. A summary of his observations appears in the *Allgemeine Homöopathische Zeitung*, vol. lv., of which the following is a translation by Dr. Hoffendahl, of Boston, communicated to the *North American Journal of Homœopathy*, vol. vii.

"The physiological effects of Atropine, when taken continuously and in increasing doses, are as follows:—

"1. *Dilatation and Immobility of the Pupil.*—The dilatation is most marked at the beginning (fourteen to twenty minutes after swallowing a dose of $^1/_{27}$ or $^1/_{30}$ of a grain) and at the end of the experiment. At the height of the intoxication the pupil is quite immoveable, and has nearly its normal diameter. The return of a slight motion of the iris is the first sign that the effects of the remedy are diminishing. Dilatation of the pupils often continues for eight days after the cessation of the other symptoms.

2. *Disturbance of the Sight.*—Objects appear as if enveloped in a fog. As the dose is increased, the obscurity increases even to perfect blindness. On omitting the remedy, these symptoms diminish with great rapidity, and disappear entirely in one or two days.

3. *Somnolence and Confusion of Ideas.*—First merely sluggishness of the mind, then dizziness and a condition resembling commencing intoxication. Headache occurred in but one case.

4. *Hallucinations of the Sense of Hearing.*—Not frequent, consisting of various sounds, roaring, &c.

5. *Hallucinations of the Sight.*—While the obscurity of objects is increasing, various phantoms are observed, gigantic forms, and sometimes laughable, sometimes terrifying appearances; also quick rotation and duplication of objects.

6. *Anæsthesia*—Cessation of pains, especially of spasmodic neuralgiæ; diminished sensibility for painful physical impressions. The sense of touch alone appears to be but little affected.

7. *Dryness of the mouth and fauces* always occurs in a few days. At first it is only a subjective symptom, but later it can be observed objectively, depending upon a diminution of the salivary secretion, but never connected with gastro-enteric irritation, a symptom which was never observed.

8. *Loss of appetite;* present in all cases, changing to great voracity at the end of the experiment. There is no thirst, notwithstanding the dryness of the fauces.

9. *Difficulty of utterance;* present at the height of the intoxication.

10. *Delirium,* often followed by, or alternating with, stupor. Always occurs after larger doses ($^1/_{10}$ to $1/_4$) of a grain), is generally of a petulant, cheerful character, and disappears slowly.

11. *Dysphagia* is never absent if the use of the drug is persevered in, and keeps pace with the dryness of the fauces.

12. *Redness of the skin* was only observed in one person, having a delicate white skin. The redness appeared so constantly in this case, from half-an-hour to an hour after each dose, that it was undoubtedly caused by the medicine.

13. *Torpor and Paralytic Trembling.*—The limbs, especially the lower ones, gradually became weak, and the gait unsteady; finally, the subject was obliged to lie down. Slight convulsive trembling of some of the muscles may be observed, but never spasm, painful retraction or spasmodic rigidity. With the loss of consciousness, the motions become entirely automatic. When the medicine has been given in gradually increasing doses, there is subsultus; when a single large dose has been given, convulsions occur.

14. *Paralysis of the Sphincters of the Bladder and Rectum.*—This is the highest step, beyond which it is not safe to push the physiological experiment. In two patients, who took the dose of one and one-half grains, there were involuntary fæcal discharges. Another patient took a still larger dose, followed by incontinence of urine and involuntary discharges."

This last mentioned effect of the drug—paralysis of the sphincters—is very interesting, for we have Belladonna highly recommended in the involuntary defæcation and micturition of children. (See *New Sydenham Society's Year Book* for 1860, page 400.)

CASE XXI.

In Case I, note (3), I have argued that the mydriatic power of Belladonna and its congeners Hyoscyamus and Stramonium, depends upon an excitation by them of the sympathetic supply of the iris. I may here mention that this view is also maintained by Mr. Wharton Jones (*Principles and Practice of Ophthalmic Medicine and Surgery*), Mr. B. Bell (*Edinburgh Medical Journal,* July 1858), Prof. Allen Thomson (*Glasgow Medical Journal,* January 1857), and Dr. Harley (*Medical Times and Gazette,* January 31, 1857). Mr. Wharton Jones supplies from comparative anatomy a most powerful argument in its favour. "In birds," he says, "the iris, which contains no radiating fibres, and receives no branches from the sympathetic, is not influenced by Belladonna." He refers also to the power which he has found Belladonna to possess of contracting the arteries when locally applied, as an analogous action to its dilating the pupil; since the arteries also are supplied by the sympathetic. Opium, which causes contraction of the pupil, dilates the arteries—in each case probably by paralysing the sympathetic Further arguments in support of this view will be found in a paper of my own in the *London Medical Review* of August 1860.

CASE XXII.

Dr. Christison, in the third edition of his work on Poisons, relates the following case of compound poisoning by Opium and Belladonna:—

"A lady, who used a compound infusion of Opium and Belladonna as a wash for an eruption in the vulva, took it into her head one day to use the wash as an injection; and actually received three successive injections, containing each the active matter of a scruple of Opium and half an ounce of Belladonna leaves. Fortunately, none of the three was retained above a few minutes, except the last, which was not discharged for ten minutes. In less than an hour she was found in bed in a deep sleep, but the true cause was not suspected till three hours later. She was then completely insensible and motionless, with the face pale, the pupils excessively dilated and not contractile, the pulse frequent and small, and the breathing hurried. After the use of purgative injections, blood-letting, leeches to the head, and sinapisms to the legs, she began in five hours to show some signs of returning consciousness, which improved after a fit of vomiting. When thoroughly aroused, the vision continued dim, with the pupils excessively dilated, and the ideas somewhat confused. For three days after the pulse continued frequent, and the pupils somewhat dilated. Here the Opium seems to have prevented the delirium induced by Belladonna in the early stage; while, on the other hand, the Belladonna prevented the usual effect of Opium on the pupils, and actually produced the opposite action."

I have quoted this case in illustration of a remark I previously made, that the state of the pupils induced by Belladonna is not dependent upon or connected with its cerebral derangement. Were this the case, the pupils should be contracted during the delirium, which corresponds to the first stage of cerebral inflammation, and dilated only in the subsequent sopor. The present case shows us the cerebral symptoms of Belladonna entirely obliterated, so to speak, by the inferior influence of the Opium; while the dilatation of the pupil is as marked as ever, and this in spite of the tendency of Opium to cause its contraction. We are, therefore, justified in concluding that the dilated pupil is a localized effect of Belladonna, and forms no necessary indication or counter-indication as to its use in cerebral affections.

I will now conclude this paper by summing up the inferences which may be drawn from the above facts as to the essential physiological action of Belladonna. In so doing, I shall be giving in brief the results of a study of the drug undertaken by Dr. Madden and myself on the basis (mainly) of the materials here collected.

Belladonna, then, in the language of the old school toxicologists is a "narcotico-irritant." By "narcotic" (better "neurotic") they mean a substance which exerts a specific influence upon the nervous system; by "irritant," one which is capable of causing inflammation in various tissues and organs. Under these two heads I shall range the physiological action of the drug.

I.—NEUROTIC.

This action of the drug varies according as it is exerted upon the sensory, the motor, or the sympathetic division of the nervous system.

1. *Sensory.*—Belladonna is an anæsthetic—a depressor of the sensory nerves. This influence is invariably seen when the drug is applied to the external surface—local anæsthesia being always the result. When swallowed in large quantity, it is exerted upon the stomach, as shown by the insensibility of that organ to emetics. It almost invariably extends to the eye, producing impaired vision going on to amaurosis, and insensibility to the stimuli which ordinarily give rise to winking. It is sometimes seen in the ear, in the form of deafness (Case V). Very rarely it affects the nerves of common sensation, giving rise to general anæsthesia (Case IV).

The only homœopathic application of Belladonna which would result from the above facts would be its use in functional amaurosis and nervous deafness. As an antipathic palliative, its anæsthetic power may be made use of as a local application to painful parts. Given internally for this purpose, it may palliate the photophobia which accompanies many affections of the eye, but can hardly be depended upon to relieve pain in general. This is the experience of physicians of the old school, as Pereira testifies.

2. *Motor.*—Here, too, Belladonna acts as a depressor—a paralyser. As in the sensory sphere, this influence is rather local than general. The difficult emesis which so often obtains is probably partly due to its paralysing effect on the stomach; and Lusanna has told us how it relaxes the sphincters. But general paralysis is rarely seen, for the loss of the power of standing and walking is probably to be referred to a different cause. (See Case I. note 1, and Case X. note 5.)

The use of Belladonna in involuntary micturition and defæcation is strictly homœopathic. In the former affection—enuresis—so common in young children, it rarely fails when given in the lower dilutions, from the 3rd decimal downwards. Antipathically, it may be used as a local application to spasmodic strictures; as in rigidity of the os uteri during labour or difficult menstruation, spasmodic stricture of the urethra with retention of urine, chordee, &c.

3. *Sympathetic.*—To the sympathetic or ganglionic nerves Belladonna is an excitant. This influence, however, appears never to be exerted except by a local application of the drug—save in the eye, where the dilated pupil, and open, staring, brilliant eyeball are precisely the effects of excitation of the cervical sympathetic, from which the eye is supplied.

We can hardly use this power of Belladonna except physiologically or antipathically. To the eye we apply it to dilate the pupil, for ophthalmoscopic purposes, or to prevent adhesions in iritis. With regard to the latter use, however, Dr. Madden states that he has treated numerous cases of iritis with homœopathic remedies, especially Clematis, without using mydriatics, and has never had reason to regret their neglect. The power of Belladonna to contract the arteries, through the medium of the vaso-motor nerves, renders it a valuable adjunct in the treatment of many inflammations. It is, of course, most useful when the inflamed part can be reached by it locally. Thus in the inflammation of the mamma, known (from its usual termination under ordinary treatment) as "milk-abscess," the local application of Belladonna, if made in time, will almost invariably cause speedy resolution.* In gastritis, Belladonna will greatly aid the specific irritant of the part—as Arsenic, or may itself effect a cure. It should not be applied (in substance) to an inflamed part to which it is specifically irritant, or aggravation will ensue. I have known it greatly increase the pain, &c. of a boil.

II.—IRRITANT.

The tissue-irritant power of Belladonna is exerted upon the encephalic mass, certain portions of the mucous membranes, and the skin.

1. *Encephalic Mass.*—This must be considered under the heads of its various divisions.

---

* See a case related by myself in *Braithwaite's Retrospect*,, vol. xlii. p. 395.

a. Cerebrum. The first effect of Belladonna upon the cerebrum is to excite, and at the same time pervert, its function. Thus we have delirium, insomnia, mania. If the influence be severe or prolonged, active determination of blood takes place, and we have symptoms of congestion, inflammation, and effusion.

The value of Belladonna is so well known in all active perversions of function, and all hyperæmic conditions of the cerebrum, that I need adduce no evidence of it here.

b. Cerebellum. The disturbing influence of Belladonna upon the cerebellum appears in the loss of co-ordinating and balancing power observed in the muscular system generally, and especially in the muscles of the lower limbs.

It is a plausible theory of some French physicians that chorea has its seat in the cerebellum.* If this be true, the power of Belladonna to cause and cure this disease may be ranged under the present category. There is little recorded homœopathic experience in this disease, but many allopathic physicians testify to the control exercised over it by Belladonna. Dr. Fuller administered it to twelve choreic children in St. George's Hospital: "in seven cases its action appeared to be decidedly curative, but in two cases it failed to exercise the slightest control over the spasms; and in the other three cases it is doubtful whether the improvement ought to be ascribed to its action."

c. Medulla Oblongata. The excited and perverted function of this centre is seen in the abnormal phenomena of the parts supplied by the nerves which originate in it. The spasms of the larynx and pharynx, the difficult articulation and deglutition, and the spasmodic cough (Case XI.), belong to this category.

An excited state of the medulla oblongata may give rise to many diseases. If its influence fall on the blood-vessels of the brain, we have epilepsy.† In this disease Belladonna is, after Hydrocyanic acid, incomparably our bestre medy. Dr. Russell has recorded some valuable cases illustrative of this in the 15th volume of the *British Journal of Homœopathy*, and it is Dr. Brown-Sequard's leading remedy at the Hospital for the Paralysed and Epileptic. If the laryngeal and pharyngeal nerves be mostly affected, we have laryngismus, pertussis, or hydrophobia (so far as the latter affection is confined to the throat symptoms). In laryngismus stridulus (Millar's asthma) we have no records of the use of Belladonna; and Aconite is so successful in this disorder as rarely to give us the trouble of seeking a new remedy. In pertussis Belladonna is a favourite remedy in both old and new schools.* In alternation with Drosera, it is probably the best remedy in the second stage of this disease. And if hydrophobia ever has been cured, the credit is due to Belladonna. Dr. Watson tells us that Mr. Youatt considered it the best prophylactic against this frightful affection (*Practice of Physic*, 4th ed. vol. i. p. 629); and it is stated that in China Stramonium is considered a sovereign remedy for it. By its influence on the hypoglossal, or motor nerve of the tongue, Belladonna may prove useful in some cases of stammering. Lastly, if the excited state of the medulla falls most severely on the pulmonary branches of the vagus, we may have spasmodic asthma—an affection for which Stramonium is the favourite remedy of the old school. Of course, if Belladonna is to prove curative in any of these diseases, irritation of the medulla oblongata must be their central cause.

---

* See Watson, *Practice of Physic* (4th ed.), vol. i. p. 672.

† See my Paper on the Nervous System, *British Journal of Homœopathy*, October 1861, p. 663.

d. Corpora Quadrigemina. Upon irritation of these organs —the centres of vision—depend the visual hallucinations so common in Belladonna poisoning, even where the retina is paralysed to all actual objects.

The curative action of Belladonna with regard to visual hallucinations is most frequently called into play when these arise as a part of delirium ebriosorum. But it should be thought of in any subjective derangement of vision—chromatopsia, diplopia, &c.—apparently of intra-cranial origin.

---

* I have just had a case in which an epileptic paroxysm occurred in the course of a severe attack of hooping-cough. Belladonna, in drop doses of the 1st dilution, was immediately resorted to; under the use of which the cough rapidly subsided, and without any return of the paroxysm. The patient was a child of ten months old.

We have no knowledge of the symptoms resulting from irritation of the corpora striata, optic thalami, or other unmentioned portions of the encephalic mass.

2. *Mucous Membranes.*—The mucous membranes on which the specific irritation of Belladonna falls are those of the eye, the throat, and the urinary passages.

a. Conjunctiva. In poisoning by Belladonna this membrane is generally injected, and in two cases we have seen it actually inflamed (Cases IV. VI.)

Belladonna is rarely called for in catarrhal ophthalmia, but is a useful adjunct in the treatment of the strumous form.

b. Throat. In the effects of Belladonna upon the throat we have dryness, heat, soreness, and redness. This is the direct order of the frequency of the occurrence of these symptoms. Christison mentions (as we have seen) two cases in which the irritation went on to aphthous inflammation.

The value of Belladonna in the various anginæ is well established. Its irritant influence on the throat forms, moreover, an important element in its homœopathicity to scarlatina and erysipelas.

c. Urinary. In this tract the influence of Belladonna causes frequent, painful, and scanty micturition, sometimes going on to strangury and hæmaturia. Occasionally the urine is much increased in quantity, sometimes after previous diminution.

Belladonna is of much value in irritable states of the urinary apparatus, short of actual inflammation. When this occurs, it is superseded in value by Cantharis, Terebinthina, &c.

3. *Skin.*—The irritant influence of Belladonna is seen in simple redness, redness with swelling (usually in the face), or scarlatinoid eruption.

The curative power of Belladonna in inflammatory affections of the skin is very marked. In erythema it easily effects a cure. In simple, non-vesicular erysipelas, its use is one of the most triumphant things in homœopathy. Mr. Liston's testimony to its efficacy in this disease is well known. Carbuncle, furuncle, and whitlow—which are all of an erysipelatous nature—demand the use of Belladonna, either as a sole or helping remedy; and it is probably the relation of Belladonna to the erysipelatous poison which renders it so useful in puerperal fever, which in nine cases out of ten is erysipelas, having its local manifestation in the peritoneum. Belladonna covers all the essential symptoms of ordinary scarlatina—the rash, the angina, and the delirium—and is thus deservedly our leading remedy in this affection. The fever and the renal inflammation alone are beyond its border, and where prominent symptoms require the aid of other remedies.

A word on the prophylactic power of Belladonna in this disease. It has been too much regarded as an isolated phenomenon; whereas I believe the truth to be, that all true homœopathic specifics are prophylactic as well as curative. Acting upon the same tissues and organs as the disease they combat, they can prevent by pre-occupying the ground, as well as cure by driving out the intruder. Thus Quinine is prophylactic, as well as curative, of ague, Cuprum of cholera, Mercury of constitutional syphilis. But it is obvious that only with a few diseases can any medicinal prophylaxis be properly carried out; and as yet we have but few drugs like the above-mentioned which completely cover the symptoms of the dreaded affection. A scientific Pathogenesy must make much progress, and the mind of the public must be greatly enlightened, before we can hope for any systematic practice of medicinal prophylaxis; but I believe that when this is reached, we shall have to thank the law of similars, and the man who established it, for the very possibility of its attainment.

The antidotes in cases of Belladonna poisoning are the mineral alkalies—Ammonia, Potash, Soda: and Opium. Its most nearly allied medicines are Hyoscyamus and Stramonium. These three are considered by some chemists to possess—like Nux Vomica and Ignatia—a common active principle.

EFFECTS OF ARSENICAL PAPER-HANGINGS ON THE HEALTH.

By R. E. Dudgeon, M.D.

From time to time extracts have been given in this Journal from other publications bearing upon the injurious effects of arsenical paper-hangings on the health of those living in rooms adorned with them. In the present paper I propose to give an account of the cases that have fallen under my own observation, where I believe I can trace the morbid symptoms entirely, or almost entirely, to this cause.

1. Though I had frequently read in the medical journals of the injurious effects of arsenical paper-hangings, it was not till the beginning of last year that I observed in my own practice any cases where I could distinctly trace their poisonous action. At that time I was extremely puzzled by the prevalence of disease among all the members of a family who, up to that time, had been comparatively healthy. The family consisted of a lady and gentleman and their three children—one grown up, the other two a girl and a boy of the respective ages of 15 and 12. The father, aged about 55, had a severe attack of rheumatism, and on his recovery from that, a difficulty of making water, neither of which affections do I at all attribute to the poisonous influence of arsenic. His wife, aged about 38, was affected with langour, inability to go about her usual occupations, total loss of appetite, frequent sickness and headaches. The eldest daughter, her step-child, aged about 40, was much more seriously ill. She had violent attacks of cough with copious expectoration, a peculiar neuralgic pain in the left arm that took her suddenly after meals, shortness of breath, loss of appetite, frequent diarrhœa, extreme debility and constant exhausting menorrhagia at the catamenial period. The other two children were subject to unaccountable attacks of pain in the abdomen, sickness and debility. Another member of the family, who resided generally at Brighton, was always affected with sickness and abdominal pains when she stayed a day or two at her father's house in London. Those of the family who resided in London got immediately much better when they went for a day or two into the country. Visiting at the house one day, I observed that the room I was shown into had a bright-green arsenical paper, and on enquiry I found that every room in the house was likewise hung with arsenical paper. I learned also, on further investigation, that the ill-health of the family was coincident in time with the hanging of these brilliant papers in their rooms. I had no difficulty in per-

suading the head of the house to have the papers removed immediately, and replaced by less gaudy, but more innocent hangings. The change was followed by an almost immediate cessation of the gastric and abdominal symptoms of all the family. The case of menorrhagia did not derive such palpable benefit; for though the gastric symptoms were removed, the menorrhagia recurred as violently as ever, and was attended by an œdematous state of the eyelids often closing up the eyes completely for a day or two. I cannot say that the menorrhagia was caused by the poisonous paper-hangings, for she had been subject to it for years, but it seemed that since she had been exposed to their influence, the menorrhagia had certainly increased in intensity, and was attended by the œdematous symptoms, which was not formerly the case. I imagine that the blood had been considerably affected by the arsenical poisoning, and had lost much of its proportion of fibrine and red particles; for the discharge was very much paler than it was formerly, and the œdema, as well as the paleness of complexion, showed a preponderance of its watery constituents.

2. A young lady of 19, who lived in an apartment hung with a bright Schweinfurt green paper, had several very severe gastric attacks, one of which almost amounted to gastric fever. They were marked by violent burning pains in the bowels, increased to sharp pain on pressure, tongue thickly furred, anorexia, great thirst. The worst attack lasted a week. She changed her residence, but oddly enough again took up her abode in an arsenical room. She here became affected with a peculiar skin disease. The skin of her neck, bosom, and shoulders was covered with a rough, cracked-looking, dirty brownish-red eruption, which burned and itched. She frequently took cold in her head, during which the itching and burning of the rash were always very much increased. After residing some months in this room, she again removed and went to the country, where she speedily improved. This eruption, as well as the gastric attacks, I am disposed to attribute to the influence of the arsenical poisoning.

3. A boy of eight years of age was brought to me suffering from loss of appetite, frequent vomiting, pain in the stomach,

and a reddish brown rough eruption in patches over his chest anteriorly. He had only had these symptoms since being at a boarding-school for three months, previous to which he was perfectly well and strong. On enquiry about the bed-room he slept in, I found it was hung with the bright arsenical paper. I should observe that his brother, who slept in the same room with him at school, was not affected in the same way. On leaving school and going home he rapidly recovered; and I may remark, though the observation may be unimportant, that some of the members of the family at home had hooping-cough, which was immediately taken by the boy who had not had the arsenical symptoms, but not by him who had suffered that way.

4. A lady, aged about 35, who had long been under my care for some pectoral symptoms that gave some uneasiness, as there were distinct signs of tubercles in the apex of the right lung, had been rather fatigued by attendance on an invalid relative, during the course of which she became affected with slight hæmorrhage from the bowels when they were moved, from which she had frequently suffered before. When in this state she went to reside with a relative at Walton, where her bed-room was hung with an arsenical paper. Here she became extremely ill; the hæmorrhage from the bowels increased to an extent she had never before known it; she became weak, anæmic, lost her appetite, and was affected with diarrhœa and violent pains in the bowels, of a burning character chiefly, much aggravated by pressure. A rough itching eruption similar to that of the last case appeared upon her chest and abdomen, and she had frequent attacks of nausea and vomiting. On going down to see her in the country, I thought I detected the cause of the indisposition in the paper of her bed-room, and though neither she nor her friends were willing to allow that the paper could do any harm, I insisted on a removal. She came up to town, and all the dangerous symptoms rapidly subsided. The hæmorrhage ceased, the eruption went off, the appetite returned, and the anæmic condition is gradually giving way to her normal rosy complexion. In this case the hæmorrhage was not caused originally by the arsenical poisoning, but it was undoubtedly very much

increased thereby, and attended by diarrhœa, pains in the bowels, and gastric derangement which had never formerly accompanied it. The patient when I visited her was in such a condition of debility and exhaustion, that I believe she would not have lived much longer subjected to the same influences. I may mention that the hæmorrhage from the bowels in this case seemed to be rapidly checked by *hammamelis* even before the patient could be removed.

5. A lady aged 28, who had recently come to reside in town, consulted me two months ago for very violent pain soon after every meal in the epigastrium, with nausea and indifferent appetite. The skin on her waist and bosom, as high up as her throat, was beset with a dry, brownish red eruption, in irregular patches, which itched a good deal. She had frequent and violent attacks of sneezing, which woke her up at night, and were attended by copious watery discharge from the nose. She had been suffering from these symptoms for many months, and on enquiry I found that her bed-room in the house she formerly resided in had an arsenical paper. The gastric symptoms rapidly subsided in her new habitation, but the eruption is still under treatment. Her husband was also affected with gastric symptoms similar in character to those of his wife, but he had no eruption.

6. A few weeks since I was consulted by a woman, aged 41, nurse in a family at Kingston-on-Thames. She told me that soon after coming to live with the family where she was now, about two-and-a-half years since, she became affected with attacks of ague, which have continued ever since. The fits of ague were generally of the quotidian type, but sometimes they became tertian, and she has never been a week without one. All that time she had been subject to almost constant burning in the epigastrium, frequent attacks of faintness often nearly amounting to syncope. Diarrhœa, pain in the bowels, sickness and vomiting were often present. Before coming to Kingston she had some spots of lepra on her arms; since then the eruption has very much increased, and has extended to her face. The room she has slept in all this time is papered with an arsenical paper. She has left this room now for four days, but is still very faint and occasionally sick, and has not yet lost her

ague fits. She never resided in an aguish district, nor knew what ague was before sleeping in this room, and Kingston-on-Thames is not supposed to be an aguish place. A child belonging to the family has occasionally slept in the room with her, but each time it did so it was affected with sickness, violent vomiting and fainting.

7. One more case came under my observation during the latter part of last year. It was that of a lady, aged 42, who for eighteen months had been subject to diarrhœa. I am unable at this moment to say if during all that time she had lived in the same house. The diarrhœa occurred every morning, and the bowels were opened from five to seven times during the forenoon. It seldom troubled her in the afternoon. The motions were loose and slimy, preceded by griping and followed by straining. I treated her for nearly three months without material benefit; on the contrary, she continued to get rather worse, weaker, and more emaciated; and about the end of October a very violent cough, with diarrhœa and pain in the chest, and mucous expectoration, came on. She became so ill, indeed, that she was no longer able to come to see me, and at the beginning of December I paid her a visit, and found her inhabiting rooms hung with the gaudiest arsenical paper. I advised an immediate removal, which was speedily followed by complete recovery from the diarrhœa and cough. During her residence in the arsenical rooms she had a bad whitlow, which I should scarcely think worth mentioning, had not the same affection occurred to another patient who sat most of the day in a similar arsenical room.

These are all the cases I can at present recal to my memory where the symptoms have appeared to be caused or aggravated by a residence in rooms coated with this poisonous pigment. I have attributed the effects produced to the arsenic in the colouring matter, because though the pigment is a compound of arsenic and copper, the symptoms more nearly resemble those of the former substance.

If I am right in attributing the above effects to the influence of the arsenic in the paper on the walls, as arsenical papers are now so frequently used in the interiors of houses, it is obvious that we should make particular inquiries in all suspicious cases as to the character of the paper-hangings in the rooms they inhabit. We may often be vainly treating—perhaps with arsenic itself, as has happened to myself more than once—maladies that owe their origin entirely to the poisonous action of that substance. All the resources of the medical art could avail but little for a patient who is daily and hourly respiring an atmosphere laden with minute particles of this subtle and lethal poison, and it should be our duty to insist on the instant removal of such papers from any dwelling or sleeping room as soon as we become aware of them. This we should do irrespective of the unwillingness of the patient or his friends to attribute his symptoms to the action of the poisonous pigment. Patients are often extremely obstinate on this subject. They like the colour of the paper, and are unwilling to put themselves to the expense and inconvenience of re-papering their room, so they will allege all sorts of reasons for refusing to comply with our advice. The paper was there a long time before the symptoms appeared, or other members of the family equally exposed to its influence remain unaffected—and so forth. But if we are satisfied that the paper is the cause, we should either insist on its removal, or on the removal of the patient from its baneful effects, otherwise our remedial efforts will be all in vain.

It will be observed that the symptoms in the above cases varied considerably, but all were truly characteristic symptoms of arsenical poisoning. In some it was the gastric and intestinal mucous membrane that was most affected; in others the respiratory organs suffered most; in several the skin was attacked; and the case numbered 6 was a most perfect specimen of ague, which, as far as I could trace, had no other cause than the arsenical room.

The pernicious employment of this dangerous arsenical pigment is not confined to paper-hangings. Recent coroner's inquests show us that it exerts its deadly influence on the poor women employed in artificial flower-making, and if in several cases it has unmistakeably occasioned death, it cannot be doubted that in many others it has been the cause of painful and dangerous diseases among these poor women. There can be no doubt also, that the girls employed in making up the bright green dresses, worn so frequently by ladies last season, must have been much injured by their occupation; and perhaps the dancers in the ball room have to blame these same verdant dresses, worn by themselves or their companions, for some of their ailments, which probably they have attributed to quite other causes.

It is well known that the workmen employed by the paper-hanging makers in the manufacture of these arsenical papers are frequently seized with violent symptoms indicative of arsenical poisoning, and we have been told by men employed to put up and take down these papers that they have felt ill for many days after such work.

It seems very doubtful if the government will interfere to put a stop to this wholesale poisoning of the people. The imbecile way in which they maunder about suppressing any practice of adulteration, unless it may interfere with the revenue—as in the case of the innocuous adulteration of coffee with chicory—make us despair of seeing any vigorous and effectual action in the case of arsenical poisons employed as paper-hangings or as articles of dress. So at present the matter rests chiefly with ourselves, and we should endeavour to let it be known, far and near, that the employment of these bright green gaudy pigments is fraught with danger, and should be at once discontinued, if serious consequence would be prevented.

PHARMACOLOGICAL STUDIES.

By Dr. Roth, Paris.

Symptoms produced by Arsenical Poisoning, referred to in vol. xix., p. 623.

The sources whence the symptoms are taken are the following. The numbers after each symptom refer to the cases of poisoning enumerated in this list by corresponding numbers:—

1. James, Souflard's death. In the Transactions of the Acad. de Méd., March 1839.—2. Rummel, Hom. Ztg., 32, 232.—3. Idem, ibid., 233.—4. Idem, ibid., 234.—5. Jacquemin, Arch. gén. de Méd., 1, 1, 148.—6. Orfila, ibid., 49, 4, 502.—7. Heifelder, Heidelb. med. Ann., 4, 2, 256.—8. Friedrich, Hufel. Jour., 5, 171.—9. Puchelt, Heidelb. med. Ann., 4, 2, 256.—10. Hohnbaum, Henke's Zeitsch., 2, 4, 306.—11. Schlegel, ibid., 1, 29.—12. Kaiser, ibid., 13, 2, 266.—13. Schreyer, ibid., 24, 3, 78.—14. Kortum, ibid., 26, 3, 165.—15. Stachow, ibid., 26, 3, 165.—16. Rothhamel, ibid., Ergänzhft., 29, 78.—17. Klose, ibid., 43, 1, 41.—18. Spengler, ibid., 55, 2, 450.—19. Sonderland, Harless, 2, 2, 175.—20. Canetta, Henke's Ergänzhft, 32, 98.—21. Amatus Lusitanus, Obs. et cur. med. centur. II. obs. 65.—22. Minich, Kurtz, Hom. Ztg., 33, 14.—23. Schapper, ibid., 33, 13.—24. Van den Dale, Manuel de Toxicol. de Frank, p. 28.—25. Tonnellier, Jour. de méd. chir. et pharm., 4, 15.—26. Kraft, Preuss. Vereinsztg, 10, 190.—27. Opler, ibid., 56.—28. Scheulen, Casp. Wchnschr, 1844, 372.—29. Borges, Rust's Mag., 5, 1, 64.—30. Koch, ibid., 50, 1, 111.—31. Hausbütner, Frank's Mag., 1, 361.—32. Idem, ibid., 362.—33. Kellermann, Œst. Jhrb., 30, 3, 423.—34. Hornung, Frank's Mag., 1, 685.—35. Brenner, ibid., 1, 686.—36. Neumann, Horn's Arch., 21, 3, 483.—37. Bodenmüller, Frank's Mag., 2, 39.—38. McLeod, Edin. Med. Jour., 15, 4, 553.—39. Ward, ibid., 33, 1, 61.—40. Gairdner, ibid., 32, 2, 306.—41. Watson, ibid., 32, 2, 306.—42. Dymock, ibid., 59, 2, 350.—43. Franque, Nassauer Jhrb., 2, 4, 1.—44. Reuter, ibid., 2, 4, 97.—45. Marcus, Ephemeriden d Heilk, 1, 3, 64.—46. Ebers, Hufel Jour., 37, 10, 17.—47. Zöllner, Eichhorn Bair. Corresp., 2, 680.—48. Buchholz, Beitr. z. ger. Arznk., 4, 154.—49. Beauchesne, Renault Nouv. Exper., 86.—50. Wolf, Act. Nat. Cur. V. obs. 29.—51. Majault, Samml. auserl. Abh. VII., 279.—52. Leroy, ibid.—53. P. Forestus, Obs. et. Cur. lib. 30, Obs. 5.—54. Quelmalz, Commerc. Normberg., 1731, h. 28, II.—55. Preussius, Act. Pat. Cur. et. III., et. IV., Obs. 15.—56. Crüger, Miscl. Cur. dec. II., ann. 4, Obs. 12.—57. H. Kapp's Jahrb. d. Stastsarzneik. II., 181.—58. Hammer, Commerc. Litt. Nov. 1738, 212.— 59. Heimreich, Act. Nat. Cur., vol. ii., Obs. 10.—60. Pyl, Aufs. v. Beob., 8, 73.—61. Dehenne, Anc. Jour. de méd., 10, 4, 330.—62. Guilbert, ibid., 4, 5, 353.—63. Odier, ibid., 49, 3, 333.—64. Barrier, ibid., 1846, 712.—65. Orfila, Toxicol. 5, ed. 1, 112.—66. Anonym. Jour. de Chim. Méd., 1846,

712.—67. Forget, Gaz. d. Hôp. 16 Fébr. 1850.—68. Wepfer, Hist. Cic. aq., 346.—69. De Haen, Rat. Med. IX., cap. VI., 249. —70. Thomson, Med. Gss., 4, 41.—71. Falconer, Mem. of Lond. Med. Soc., 2, 224.—72. Pinel, Nosogr. 1807, 2, 225.—73. Missa, Orfila Tox., 5, edit. 1, 390.—74. Gerard, ibid., 391.—75. Devergie, Jour. Univ. des Scien. Méd., 6, 333.—76. Leuret, Rec. period. de Gaultier de Claubry, 94, 1, 31.—77. Fielitz, Baldinger's Neues Mag., 3, 437.—78. Hafter, Frank's Mag., 3, 438.—79. Alguié, Rec. de Méd. Milit., 5, 162.—80. Flechner, Wien. Verhandl., 2, 237.—81. Huss Busch, Frank's Mag., 4, 445.—82. Nissen, Pfaff's Nord. Arch., 1, 2, 326.—83. Pfaff, ibid., 1, 1, 45.—84. Bruckner, Allg. Hom. Ztg., 57, 91.—85. Coqueret, Orfila Tox., 5 edit., 1, 403.—86. Edwards, ibid., 408.—87. Skillmaud, ibid., 409.—88. Augouard, ibid., 413.—89. Schäfer, Hufel. Jour., 42, 6, 65.—90. Hasemann, Reil's Jour. f. Pharmacod., 2, 2, 164.—91. Alberti, Juriap. Med. tom. II., p. 517.—92. Montanus, Consil. Med., 367. —93. G. W. Wedel, Dissert. de Arsenico, 1719, p. 10.—94. Murray, Edin. Med. and Chir. Jour., XVIII., p. 167.—95. Jeeske, Kurtz, Vierteljahrschr. v. Müller, 8, 468.

CONSCIOUSNESS.—1.—*Retained.* The intellectual faculties not in the least disturbed. 1. Mental faculties undisturbed, but the senses morbidly delicate. 84. Consciousness unimpaired. 28. Full presence of mind. 43, 88.

5.—Consciousness perfect till death. 12, 48. She retained her intellect, clear consciousness, and an imperturbable calmness. 43. Intellect clear; answers tardy. 67. Comprehension and speech distinct and calm, but often interrupted by vomiting. 40. He gives very short answers to the questions put to him. 5.

10.—*Lost.* He seemed not to be clearly aware of his condition. 15. Loss of consciousness. 33, 34, 36, 90. Unconsciousness for some hours. 76. Loss of consciousness and convulsions. 76. Loss of recollection. 15, 33.

15.—They lay without recollection or sensation. 64. After vomiting, unconsciousness for several days. After vomiting and diarrhœa, a state of stupor, out of which it was difficult to rouse her. 75. Lethargic state, out of which she often awoke, but only for a short time. 43. Lethargy, with the eyes fixed. 85.

20.—Lethargy and abiding sleepiness. 85. Apoplectic state, difficult breathing, with convulsions over the whole body. 38. Comatose stupefaction. 64. Stupefaction and somnolence. 15.

DELIRIUM.—Delirium. 5, 25, 28, 64, 65, 81, 82, 85.

25.—Slight delirium at night. 67. He is said to have talked at random sometimes in the night. 44. Very strong delirium, especially at night, accompanied with great restlessness. 85. Strong delirium, with loss of consciousness. 38. Violent delirium for the last three or four days. 15.

30.—He slips down in bed, can hardly move his limbs, and is difficult to rouse out of his lethargy, which is combined with delirium. 47. Delirium: he gets up to go to his daughter, whom he must have known to be absent, and could not without trouble be restored to calmness, but speaks rationally. 15. Violent ravings, off and on. 3. He raved often in the course of the disease. 15. Ravings and "carphology," catching with his fingers under the quilt. 15.

35.—Wanderings, in which he made motions with his hands, as if measuring with a yard, as then his delirium turned most upon his employment. 15. Embarrassment of the thoughts. 10. His reason left him from time to time. 62. Illusions of the senses, alternating with half-stupified sleep.

FEAR.—Anxiety of mind. 19.

40.—His movements were trembling, and, with his fixed stare, betray fear and anxiety. 45. He looked about him in fear and trembling, whether any one was watching him, and begged the door might be shut. 45. Excited and anxious. 28.

MURDEROUS PROPENSITY.—Whenever he shaves any one, an almost incessant inclination comes over him to cut the man's throat after lathering him. 45.

FOLLY.—Fits of folly and sadness. 63.

45.—SADNESS.—12, 63.

DESPAIR.—She is desponding about her condition. 25.

ANGER.—Her state of mind had altered greatly since the poisoning (four months ago); her natural cheerfulness was quite scared away; she dreaded solitude and death. The most trifling motive was sufficient to put her into a furious passion, which was especially the case if one spoke of her perfect recovery, which she looked upon as utterly impossible. At times, also, she was seized with indescribable sadness. Her original cheerfulness did not return till a whole year had passed.

GIDDINESS (VERTIGO).—Giddiness. 15, 18, 27, 28. Staggering. 33, 91.

50.—Great giddiness, so that she had to support herself. 4. So giddy that he could not hold his head up. 28. Giddiness and stupidity in the head. 77. Giddiness, with temporary loss of sight. 84. Giddiness, with calm expression of countenance. 44.

55. Giddiness on standing up. 18. Giddiness and trembling. 18. Giddiness and strong twitchings. 70.

PAINS OF THE HEAD IN GENERAL.—Great confusion of the head (Kopfeingenommenheit). 18, 37. Severe headache. 2, 11, 15, 18, 23, 27, 34, 54, 76, 81, 87.

60.—Headache and vertigo. 12, 18. Pains in the head and vertigo for several days. 93. Pains in the head and confusion. 10. Complains of severe pains in the head, with burning and pain in the neck. 38. The child grasped at its head and neck. 15.

65.—Pains in the head at indefinite times, mostly at night. 33. Pains in the head, continuing eight days. 85. Pains in the head and stomach. 26. Severe pains in the head, with fever, and sensitiveness in the region of her stomach. 85.

HEAVINESS OF THE HEAD.—Heaviness of the head, without pain. 85.

70.—Heaviness and gloominess in the head. 48. Heaviness of the head. 64, 75, 85. Heaviness and pressure in the head. 33.

FRONTAL REGION.—Cold sweat on the forehead. 10, 82.

TEMPORAL REGION.—Troublesome pains in the temporal region. 33.

75.—VERTICAL REGION.—Pain in the region of the crown. 33. A pain in the crown of the head, which was sometimes pressively stunning, sometimes severely throbbing, sometimes burning; which yields to gentle rubbing. 4. The burning pain in the crown of the head has (after ten days), not yet quite disappeared, and she complains, when touched on the part, of pain like a wound in the scalp.

OCCIPITAL REGION.—Head painful, especially in the occiput. 3.

INTEGUMENTS OF THE HEAD.—Tumefaction of the whole head, even of the veins and eyes. 54.

80.—A scurfy eruption on the occiput (Achores). 3.

HAIR.—Falling off of the hair. 2, 4, 24, 23. The hair, which had fallen off, grew again, but was hard, brittle, and grey. These, however, fell off soon again of themselves, and gave place to healthy brown hair, which gradually attained the same thickness and length as before. 4.

EYELIDS.—*Swelling.* Swollen eyes. 15. Great swelling of the eyelids, which are closed thereby. 11.

85.—Œdematous swelling of the left eyelid, 18.

COLOUR.—The eyelids swollen and reddened. 61. Eyelids and lips blue. 18. Blue rings around the eyes. 12, 29. Blue rings around the heavy eyes. 12.

90.—EDGES OF THE EYELIDS.—The edge of the eyelids highly reddened. 85.

CONJUNCTIVA.—The eyes red. 61. The eyes very red. 85. The conjunctiva somewhat reddened. 18. Eyes injected. 35, 65, 86.

95. Eyes injected as at the beginning of eruptive fever. 85. Injection of the conjunctiva. 84. Conjunctiva inflamed. 12. Conjunctivitis palpebralis. 66. The eyes not reddened. 28.

100.—No trace of inflammation of the eyes. 12.

SCLEROTICA.—The whites of the eyes reddened. 20. The whites of the eyes yellow. 79. Yellowness and rigidity of the eyes, with complete obscuration of sight. 54. On the albuginea and the edges of the reddened cheek a slight tinge of jaundice. 44.

105.—IRIS.—Symptoms of iritis. 84. Conjunctiva little injected, but about the cornea the ciliary vessels so enlarged that they almost resemble the vascular ring in iritis acuta. 42.

PUPILS.—Pupils enlarged. 12, 42, 75, 90. Pupils only a little dilated. 12. Pupils contracted. 1, 90.

110.—MUSCLES OF THE EYEBALL.—From time to time the eyes are turned upwards, and squint, but only transiently. 1. Eyes projecting and rigid. 12, 62. Eyes projecting and quite red. 30.

SIGHT.—She seemed sensitive to light, and often kept her eyes shut. 88. Weakness of the eyes. 33.

115.—Variation of the sight. 79. Sight indistinct. 15. Darkening and flickering before the eyes. 12. During the nausea he sees yellow before his eyes. 91. Darkness before the eyes. 15.

120.—He opens his eyes and complains that they have lost the power of seeing. 25. She completely lost the power of seeing. 43, 54.

EXPRESSION OF THE EYES.—A vivacious, piercing look. 88. A wild look. 51, 62, 79. An anxious look, but not wild and disturbed. 28. Eyes very sharp, betraying no great pain, but yet decided uneasiness. 40. Eyes fixed. 31. Eyes heavy. 12, 64. The eye heavy, without brilliancy, and generally closed. 43.

SECRETION OF TEARS.—Tears, which corroded the eyelids. 62.

130.—The eyes, as if bathed in tears, stood far out of the head. 62. The eyes tearful, half opened, and reddened. 25.

EARS.—Humming in the ears. 7, 12. Humming in the left ear. 33. No humming in the ears. 1.

135.—NOSE.—Burning pain in the nose, eyes, and mouth. 61. Severe bleeding at the nose after taking wine. 23. Bleeding at the nose during vomiting. 4.

MUSCLES OF THE JAW.—Jaws firmly closed. 38, 64. Trismus, with convulsions over the whole body. 38.

140.—She swallowed the drink presented to her with a convulsive motion of the jaws, almost sufficient to shiver the glass. 88.

COMPLEXION.—*Pale.* Paleness of the face. 3, 5, 12, 27, 35, 51, 63. Face pale and dingy. 38. She looked very pale, and felt much enfeebled. 43. The face pale; disturbed expression. 9, 12, 67.

145.—*Blue.*—Face blueish grey. 43. Face somewhat livid.

28. Face lead-colour. 15, 58. *Yellow.*—Complexion greyish yellow. 2. Complexion yellowish. 15, 44.

150. Face of a yellowish tinge about the alæ nasi, and reddened. 79. *Red.*—Face red. 15, 27, 38, 86. Face and tongue red. 76. Ruddy and distorted countenance. 43. Face red and inflamed. 64.

155.—Face and eyes injected. 65. Face irregularly red, and covered with perspiration. 25.

Expression of the Face.—Miserable look. 2. Lineaments much altered. 12, 43, 47. Face deadly pale, lineaments quite changed. 12, 91.

160.—Countenance sunken. 4, 73. Nose sharp. 43, 50. Face sunken, pale, and covered with cold sweat. 63. "Hippocratic countenance." 43, 77. Face pale, with an expression of extreme pain. 5.

165. Signs of inexpresssible anguish and perplexity, with an expression of some deep suffering. 16. Face expressing the greatest anguish; first red, then white. 18. Expression of real anguish of soul. 27. Countenance betraying terrible expression of fear. 42. Face stupid. 47.

Perspiration on the Face.—Face covered with perspiration. 25, 30.

170.—Temperature of the Face.—Face covered with cold sweat. 26, 43, 63. Face cold, nose and lips blue. 25. Heat of the face, with quick pulse. 40. Face and hands cold, and covered with cold sweat. 26.

Muscles of the Face.—Muscles of the face get from time to time into convulsions. 62.

175.—Face horribly distorted by cramps and pain. 9. Face pale, cadaverous, convulsively drawn. 9.

Tumefaction and Eruptions on the Face.—Face at times puffed up. 88. Face red and puffy. 12, 67. Swelled face. 10, 11, 15, 38, 42, 64.

180.—Œdema of the face. 2. Swelling of the face and legs. 15. Pale grey swollen face. 15. Cachectic swelling of the face. 54. On the left side of the face, corresponding with the parotid, an inflamed patch on the skin, red, solid, firm, painful, looking yellow on pressure with the finger. 18.

185.—On the red inflamed patch of skin, numerous vesicles filled with yellow fluid, which extend redness and inflammation around the nose and mouth. 18. Eruption on the face, covered with blisters. 18. The eruption is drying—scabs fall off here and there, and on the concha of the left ear new vesicles are forming. 18. The eruption on the face dried to a crust: nose and eyelids desquamating. 18. Erysipelatous redness and swelling of the face and fauces. 55.

190.—Face covered with pustules. 61.

Lips.—Lips blueish. 12. Lips and tongue blueish. 43. Lips sprinkled with little black spots. 62. White powdered lips. 36.

195.—An eruption on the lips resembling Herpes labialis. 2. He cannot speak, being unable to close his lips: the under lip is scorched, hanging outwards, everted, and very painful. 1. Lips convulsively distorted, as in the "Risus Sardonicus." 64. Frequent smiling. 38.

Gums.—A purplish red line on the gum. 84.

200.—Teeth.—Toothache. 38.

Cavity of the Mouth.—Burning in the mouth and throat. 10. Mouth, throat, and œsophagus begin to burn severely. 34. Burning in the mouth, along the gullet, and in the scrobiculus cordis. 89. Cavity of the mouth and the fauces inflamed and red, which lasted three days. 60.

205.—Dryness of the mouth. 20, 37, 76. He fancies he has sand in his mouth. 44. Aphthæ in the mouth, at first white, afterwards black. 68. Painful vesicles in the mouth and on the tongue. 2. Numerous aphthæ all over the mouth. 75.

210.—Tongue.—*Burning.* Severe burning on the tongue, the palate, and throat. 15. Severe burning on the tongue, in the throat, and stomach. 77. Very troublesome burning and biting of the tongue and throat. 54. *Moist.*—The tongue moist. 28. Tongue cold and moist. 67.

215.—Tongue moist, white in the middle. 76. *Dry.*—The tongue dry. 51, 53, 62. Tongue dry, loaded in the hinder portion. 15. Tongue dry, with a brown fur. 15. Tongue and inner cavity of the mouth dry, and as if inflamed. 29.

220.—Tongue dry and white. 40. *Swollen.*—Tongue swollen.

15. Tongue swollen and greyish. 1. *Loaded.*—Tongue much loaded. 3, 39, 44. Tongue loaded and whitish. 9, 37, 91.

225.—A slimy coat on the tongue. 75. Tongue thickly coated. 81. Tongue coated and whitish yellow. 1. Tongue covered with yellowish fur on the base, red at the tip and edges. 79. Tongue with the papillæ very prominent, bright red at the tip. 3.

230.—Tongue clean. 33. Upper surface of the tongue white; not coated, but thickened. 19. *Aphthæ.*—Blisters on the tongue, on the edges of the tongue, five superficial ulcers of the size of a pea. 18. *Movement.*—Weakness and pain of the tongue. 87.

235.—Taste.—Disagreeable taste. 23. He is complaining of an abominable taste in the mouth and throat. 1. Biting, repulsive taste. 60. Disgusting astringent taste in the mouth. 18. Bitter taste in the mouth. 54.

240.—Saliva.—Frequent spitting. 64. Continual spitting of saliva and phlegm. 1. Bloody saliva. 61.

Throat and Œsophagus.—Pain in throat and mouth. 86. Pain in throat and stomach. 87.

245.—Pain in gullet and belly. 18. Feel of heat and distress in the gullet. 40. Heat and burning in the throat. 38, 75. Burning in the throat. 10, 29. Burning in the gullet. 15, 18.

250.—A burning sensation from the *scrobiculus cordis* up the gullet, as far as the pharynx, where it is most severe, produces a distinct scraping, and prevents swallowing. 18. Severe burning, commencing at once in the gullet. 57. Violent burning in the gullet down to the stomach. 33. Sensation of slight burning in the œsophagus. 80. Burning sensation along the œsophagus. 33, 76.

255.—Violent burning like fire in the throat and chest. 44. Burning in the throat and gastric region. 16. Violent burning in the gullet and stomach. 47. Uvula somewhat swollen and reddened. 18. Throat swollen and red. 87.

260.—Fauces much reddened. 18. Sore throat, with inflammation and swelling inside and out, about the root of the tongue. 38. Erosion of the throat, suppurating deeply. 18.

Superficial excoriation of the fauces. 18. Sensation of soreness in the œsophagus. 85.

265.—Remarkable contraction of the throat and chest. 55. Occasional convulsive cramps in the throat. 38. The throat contracted. 61, 91. Cramp in the gullet. 16. Dryness and constriction of the throat. 23.

270.—Swallowing very difficult. 25, 91. Difficult swallowing and pain in the throat. 60. She could neither speak nor swallow. 38. Swallowing very difficult and painful. 61. Dysphagia. 38, 75.

275.—Difficulty of swallowing, owing to ulcers in the throat. 18. Unable to swallow or speak, and always pointing to the throat. 38.

HUNGER.—Want of appetite. 2, 3, 11, 15, 16, 18, 23, 33, 37, 58, 60. Want of appetite, with a sense of pressure on the gastric region. 16. Loss of appetite for eight days. 33.

280.—Nauseating all food. 18, 91. Slight disgust, without any pain whatever. 39. Morbid increase of appetite. 84.

THIRST.—Thirst not very remarkable. 44. She will not drink. 25.

285.—Thirst. 23, 68, 76. Increased thirst. 2, 3, 7, 12, 15, 18, 27, 33, 35, 38, 39, 40, 43, 75, 80, 91. Burning thirst. 17, 29, 51. Burning thirst, without any particular longing to satisfy it. 88. Violent tormenting thirst. 18.

290.—Unquenchable thirst. 16, 20, 28, 32, 37, 48, 62, 81, 84, 86. The thirst becomes unquenchable in the evening. 43. Burning unquenchable thirst. 64. Thirst so violent that in one day and a half he drank off eleven pitchers of water. 44. Choking thirst, for which she drank very cold spring water, in large quantities. 53.

295.—Frequent and violent longing for cold water. 12. Very thirsty, with griping of the whole abdomen. 53. Eager drinking of what is offered when the pain is allayed. 12. Thirst, with anguish. 15. Thirst and continued fever heat. 55.

300.—The vomiting ceases; he only cries perpetually, "I am thirsty." 1. He longs for refreshing fruit, and sucks slices of lemon with great eagerness. 1.

ERUCTATION.—Frequent eructation. 37. Violent eructation. 38. Eructation and nausea. 28.

305.—Eructation, with singultus. 47. Acidity of the stomach. 33.

NAUSEA.—Fits of nausea. 12, 23, 33, 34, 91. Nausea, with constant provocation to vomit. 60.

VOMITURITION—Retching.—Inclination to vomit, without vomiting. 18, 84, 88.

310.—Very hard straining to vomit. 8, 25. Continual retching without actual vomiting. 23, 57. Violent retching. 10, 27, 86. Frequent ineffectual retching. 12, 29, 79. Ineffectual retching, continued almost without intermission. 10.

315.—Periodic vomiting; or, rather retching. 15. Constant vomiturition, with rare vomiting, but frequent retching, which seems to be aggravated periodically with oppression. 15.

VOMITING.—Vomiting. 11, 36, 41, 56. Fits of nausea, then vomiting. 12, 28, 54. Nausea and severe vomiting. 11, 33, 64.

320.—Great nausea, with repeated and very fatiguing vomiting, without any relief. 12. Vomiting, not copious, combined with remarkable straining. 18. Frequent and violent vomiting, constantly followed by great fatigue and languor. 12. Vomiting eighteen to twenty times in succession, and becoming so feeble after it, that she could not speak, but to complain of her bowels. 15. Constrictive nausea, followed by vomiting. 82.

325.—Very violent vomiting. 10, 16, 25, 26, 29, 34, 43, 58, 76. Frequent vomiting, with straining. 12, 63. Vomiting at short intervals, till the second day. 33. Repeated vomiting for forty-eight hours. 6. Retching and violent vomiting. 26, 34, 53.

330.—Vomiting continuing amidst painful retching, and repeated at latest every ten minutes. 47. Amidst fearful retching and cramp-like contraction of the stomach, he was obliged to throw up six times. 9. Prolonged hard vomiting, with a sensation as if one was tearing out his stomach and intestines with pincers. 27. Constant vomiting, with frightful cries of pain. 59. Vomiting, with the return of his senses. 64

335.—Hard vomiting and violent bleeding at the nose. 4. After each draught the vomiting is renewed, with violent pains in the abdomen and gullet. 18. Vomiting always after drinking. 20. Taking brandy relieves the inclination to vomit. 3[illegible]. He vomits readily, even after slight meals. 33.

340.—The vomiting is relieved by water. 33. Retching and vomiting as soon as he had taken a few spoonfuls of soup. 37. Vomiting results by jerks, without much straining. 2. Most violent vomiting, with frightful pains in the abdomen and legs. 16. Incessant vomiting amidst hard retching, griping of the abdomen, and other pains. 9.

345.—Almost unintermitting vomiting for forty-eight hours, along with frightful burning in the abdomen, and unappeasable thirst. 4

QUALITY OF THE MATTER THROWN UP.—Vomiting of all the ingesta. 15. Vomiting, first of the food taken, then nothing but clear water. 8. Vomiting of the food and of white mucus. 20. Vomiting of the food, mixed with a viscous matter. 25.

350.—Violent vomiting, not only of the food last taken, but also of a fluid. 33. He at several times, and with great violence, threw up at first remnants of food, and then the water he had taken, with great alleviation. 33. Nausea, sometimes proceeding to vomiting of food, mucus, and a fluid partly acid and partly bitter. 80. Incessant vomiting of the milk he had taken, and roaring with pain like a wild beast. 1. At first he threw up food, then mucus and green bile. 2.

355.—Violent ejection of mucous, bilious, and frothy masses. 18. Retching and repeated violent vomiting of mucus and bile. 28, 91. The ejectamenta said to have tasted bitter, like sharp bile, and to have looked green. 44. Vomiting, especially of yellow fluid and mucus. 40. She vomited much, including green bile. 53.

360.—Vomiting of much green bile during the first hour. 3. Much green bile thrown up. 2. Vomiting of abundant pale yellow fluid. 43. Vomiting of a bitter, greenish-yellow fluid. 28. Copious vomiting of bilious matter. 28. Vomiting, at first of whitish, frothy fluid, afterwards of saburra, mixed with sharp bile. 54. Frequent vomiting of much mucus, saliva, and a considerable portion of the poison. 39. Retching, with frequent vomiting of white mucus. 30. Frequent vomiting of a brownish matter, with extraordinary straining and debility. 12. Frequent vomiting of a dark, brownish matter. 12.

370.—Vomiting of food, with a reddish-brown fluid. 10. Vomiting of brown and green substances. 83. Vomiting two or three times of viscid mucus and a brown mass. 43. The ejectamenta colourless or pale yellow, mixed with a little frothy saliva, or some streaks of blood. 25. Vomiting of the water he had drunk, at last with yellowish mucus, once only, streaked with some blood. 40.

375.—Vomiting of mucus mixed with blood. 35. Violent vomiting, with little intermission, for a day and a-half, sometimes mixed with blood, accompanied by cutting in the stomach. 81. Vomiting of mucus and blood. 61. Vomiting of blood. 38, 49. Vomiting of actual blood. 8. Vomiting of substances that excited contraction of the throat. 75.

381.—Stomach.—*Disagreeable Sensations.* Unpleasant feeling in the stomach. 19. Disagreeable feeling in the stomach. 33. Disagreeable, yet not very painful feelings in the *scrobiculus cordis,* accompanied by a peculiar anguish of mind. 12. Anguish in the gastric region. 15. Great oppression in the precordial region. 27.

386.—*Pains of an undefined nature.*—Pains in the gastric region. 12, 17, 18, 34, 61, 83. Cardialgia. 64. Very violent pain in the epigastrium. 76, 87. Neither pain nor sensitiveness in the epigastrium. 40. Only slight pain in the gastric region. 43. He feels pain nowhere but in the stomach. 1. Violent pains in the stomach, and nausea. 12. He seemed to be in violent pain, wailed, groaned, cried out, pressing his hand against the gastric region, but gave no verbal indication of the seat of the pain; as in general, nothing could be got out of him. 10. He scratched the skin of the epigastrium constantly with his nails. 1.

395.—Pains in the precordium, and vomiting. 53. Tormenting pains in the gastric region, with vomiting. 38. Stomach and œsophagus painful. 61. Pains in the gastric region and abdomen. 35, 53. Violent pain in the stomach and abdomen. 8, 26. Pains in the stomach and intestines. 80. The child complained of great pain in the stomach and abdomen. 18. Violent pains in the epigastrium and umbilical region. 76. The stomach pains relieved by sweet milk. 33.

Burning.—Burning sensation in the scrobiculus cordis. 12.

405.—Burning in the stomach. 18, 84, 86. Sensation in the stomach, as if it would burn up. 1. Violent burning pains in the stomach. 53, 88. Frightful burning pains in the stomach. 25. Glowing heat, with great anguish in the gastric region, and tormenting retching. 16.

410.—Burning sensation in the scrobiculus cordis, with pains in the abdomen, and nausea. 12. Severe burning pain in the stomach and bowels. 33. Remitting burning pains in the stomach, with remarkable anxiety. 12. Burning, gnawing, and griping in the region of the stomach and bowels. 55. *Pressure.*—Pressure on the scrobiculus cordis, and a hot feeling within. 12.

415.—*Pinching.*—At times, traces of pinching and pains in the scrobiculus cordis. *Tearing.*—Tearing pains in the stomach and bowels. 29. Tearing in the stomach and abdomen. 17. *Cutting.*—Cutting sensation in the scrobiculus cordis. 60. Cutting, cramp-like pains in the stomach, abdomen, and chest. 4.

420.—*Drawing.*—Painful drawing in the stomach, with slight cold shivering. 79, 420. *Contraction.*—Painful contraction in the epigastrium. 73. Sensation of contraction in the gastric region. 27. Severe constrictive sensation in the gastric region. 26. Violent constriction of the stomach and gullet, with painful burning. 34.

425.—Violent cramp in the stomach and abdomen. 84, 85. Frightfully violent cramps and pains, especially in the gastric region. 9. *Sense of Laceration.*—Extremely painful sensation in the stomach, as if it were powerfully stretched in its whole circuit, and would certainly be torn to pieces. 57. *Stomach Pains from External Pressure.*—Slight pain on touching the gastric region. 8, 19, 88. He complained little of pain, yet the gastric region was sensitive to external pressure. 2.

430.—Slight sensitiveness in the gastric region, removed by firm pressure. Pain on touching the region of the stomach and bladder. 10. Slight pressure on the epigastrium seemed to cause uneasiness. 42. Pressure on the stomach painful.

1, 5, 18, 33, 39, 83, 86. The gastric region very sensitive, and also very violent pains in the intestinal canal. 25.

435.—Gastric and umbilical region sensitive. 89. Stomach extraordinarily sensitive. 37, 49. Painful pricking heat in the stomach, not aggravated by pressure on the epigastrium. 40. *Puffing up of the Gastric Region.*—Stomach somewhat puffed up, and warmer to the feel than the rest of the body. 12. Stomach much puffed up, rather hard, with violent pain near the abdomen. 12.

440.—Violent pains in the stomach and abdomen, which were not remarkably puffed up. 12.

DIGESTION.—Indigestion. 33. Difficulty of digesting the smallest quantity of food. 4.

PAINS OF THE ABDOMEN WITHOUT EVACUATION.—*Undefined Pain.* Pain of the bowels. 10, 41. Violent pain in the bowels. 3, 15, 26, 27, 28, 29, 30, 31, 49, 56, 64, 67.

445.—Intolerable pains in the abdomen. 32. Such violent pain in the bowels, that in returning home he had to support himself against the houses to keep from falling. 9. Pain in the bowels and intolerable anguish. 18. Pains in the bowels, accompanied with anxiety, and so violent that he first clung to the bystanders, then thrust them from him, often sprang on the bed, seated himself on the night-chair, or ran about the room. 15. Intolerable pain of the bowels, with continuing increasing anguish and cries for help. 16.

450.—Violent pain in the bowels, causing outcry. 37. Frequent, but not lasting pain in the bowels. 43.

Gripes.—Frequent gripes. 33. *Colic.*—Colicky fits. 18. Violent colic from time to time. 52.

455.—Violent colic pains in the night. 63. *Burning.*—Warm sensation in the abdomen. 27. Violent burning in the whole *tractus intestinorum.* 47. Burning pain in the bowels. 14. Burning heat in the intestines. 64.

460.—Severe burning in the abdomen, neck, and breast. 15. Burning pain in the intestines. 62, 91. The pains, which at first had their seat in the stomach alone, proceeded downwards to the intestines; he pressed the navel with his right hand, and cried that his intestines were burning. 1. *Tearing.*—Violent tearing in the bowels, lasting half-an-hour. 44. Tearing in the bowels. 91.

465.—*Cutting.*—Cutting in the abdomen. 23, 91. Frequent cutting in the abdomen. 1. Cries from pain, as if the epigastrium were quite cut off from the hypogastrium. 91. Pains in the abdomen, as if the intestines would be cut through with swords, compelling him to cry out. 15. Cutting burning pains in the bowels. 18.

470.—The burning of the intestines soon subsided, and there remained no trace but cutting in the abdomen appearing at long intervals. 1.

METEORISM.—Abdomen distended. 24, 34, 36. Abdomen distended, with violent cramps in the intestines. 54. Abdomen distended. 11. Tension of the abdomen. 47, 67, 72, 76.

475.—Diarrhœa, preceded by a sensation as if he were going to burst. 91. Hard, swollen, distended abdomen. 60. Tumefaction of the abdomen and the *regio orbitalis*. 15. Abdomen much distended and painful. 62. Belly, especially the gastric region, somewhat, but not remarkably, distended. 12.

480.—Hardness and swelling of the abdomen, which did not disappear after the bowels were opened. 60. The abdomen was soft and not distended. 1. The abdomen hardly at all distended. 28. Abdomen soft and sunken. 19. Abdomen not distended, neither stretched by cramps, not painful from touch or pressure. 44.

485.—Severe rattling in the abdomen. 3.

ABDOMINAL MUSCLES STRETCHED.—The abdominal parietes seem drawn in against the spinal column. 78. Belly drawn in, more solid, resembling to the feel the condition of painter's colic, little sensitive to pressure. 9. The abdominal muscles contracted, and almost touching the spinal column; the *recti* stretched like cords. 1.

490.—PAINS IN THE BELLY FROM EXTERNAL PRESSURE.—Abdomen sensitive to the touch. 9. Abdomen painful to the touch. 79. Abdominal pain, aggravated by touch. 15. Violent pain on touching the abdomen, and especially the scrobiculus cordis. 43. Painfulness and distension of the abdomen, so that he cannot bear the bed-clothes. 81.

495. Pain in the abdomen, especially the scrobiculus cordis, which increased on pressure. 28. At first the gastric region, afterwards that of the liver and hypogastrium, painful to the touch. 8. The abdomen is not sensitive to pressure; it is only when one approaches the gastric region that sensitiveness is manifested. 1. The belly not painful to the touch, and normal. 43, 90.

PAINS OF THE ABDOMEN, WITH EVACUATION.—*With Vomiting.* Discomfort in the abdomen, followed by colic and very frequent vomiting. 75.

500. Cutting of the abdomen and vomiting. 23. Violent cutting of the abdomen and vomiting. 13. Violent tearing in the abdomen, with nausea and vomiting. 44. *With Diarrhœa.*—Diarrhœa and pain of the abdomen. 15, 43. Pains in the abdomen, with copious stool, followed by diarrhœic evacuation. 43.

505. Violent pains in the bowels, with unceasing diarrhœa. 77. Diarrhœa and pain in the bowels, during which he grasped his friend with both hands, complained of the abdomen, and drew his legs high up. 15. After slight pinching in the lower bowels, three or four yellowish, watery stools, with thirst. 43. Colic, with copious stools. 75. Tearing in the abdomen and diarrhœa. 60.

510.—He had already been more than one hundred times at stool, and could no longer help himself alone, through debility, but the diarrhœa continued still, with greater anguish and cutting in the intestines. 77.

PAINS IN THE BOWELS LOCALIZED.—*In the Umbilical Region.* Violent pains from touching about the navel, compelling him to bend forwards, and aggravated by the attempt to straighten himself or to lie on his back. 63. *Hypochondria.*—The hypochondria tense and shaken by convulsions. 64. Pain in the region of the liver. 79. Dull pain, with a sensation of tension and weight in the right epigastric and hypogastric regions. 79.

515.—*Hypogastrium.*—Pain deep down in the abdomen. 15. Cutting and tearing sensations seated deep in the hypogastrium. 60. Violent cutting in the hypogastric region. 47.

VOMITING AND DIARRHŒA.—Vomiting and diarrhœa. 7, 10, 14, 15, 20, 33, 84, 95. He vomited and became violently relaxed. 51.

520.—Violent vomiting and purging often repeated. 43. Long continued vomiting and purging. 67. Vomiting, especially at night, which abated by morning, when a diarrhœa set in. 15. Vomiting and purging all night long. 87. Violent vomiting and purging for four days. 17.

525.—Vomiting, followed by violent diarrhœa. 15. Vomiting and diarrhœa of such violence that the evacuations could not be counted; at the same time great anguish in the precordia. 50. He vomited in the two first days and the night about seventy times; this did not cease till the eighth day, and he had frequent stools, especially in the early part of the time. 89. Stools and vomiting to an enormous degree. 55. Vomiting and painful diarrhœa. 75. Vomiting and diarrhœa, with violent pain in the bowels. 48.

530.—Continued diarrhœa, combined with incessant vomiting, and followed by great pain in the stomach and abdomen. 50. Amidst tormenting retching, violent vomiting of a great quantity of greenish fluid, and two stools, containing the food taken on the previous day, nearly undigested. 47. Vomiting, then colic, and repeated stools. 67. Violent vomiting and frequent loss of consciousness, only lasting for a few moments, immediately followed by shivering, pain in the bowels, and interrupted stools. 75. Violent pains, including the whole of the abdomen, with long-continued vomiting and purging. 43.

535.—Repeated vomiting of the food taken, and immediately after it repeated purging, with alleviation. 33. Vomiting and purging, with intolerable odour. 24. Frequent dark-coloured fetid stools, and at the same time vomiting of a clear, slimy, inodorous fluid. 43. Vomiting and stool bloody. 84. Violent vomiting of blood, and evacuation of dark blood *per anum*, during which, latterly, a violent burning pain was felt. The hæmorrhage so copious, that not a drop of blood seemed to be left in the body. 4.

540.—Evacuations upward and downward of a great quantity of blood mixed with bilious matter, with visible alleviation. 79. Vomiting and stool of greenish serum. 4. He had all through the day several stools and frequent vomiting of yellowish fluid. 5. Long-continued violent vomiting, with diarrhœa, ejecting slimy, greenish matter. 29. Several dark, bilious evacuations, mixed with mucus, and long-continued inclination to stool. 39.

545.—Dark, slimy evacuation, with long-continued vomiting, about seven times a day. 44. The incessant vomiting, the diarrhœa, the cramp in the calves of the legs, and the livid countenance, and especially the liquid evacuations, exhibiting no trace of blood, led us to consider the disease as a form of sporadic cholera. 28. Vomiting alternately with diarrhœa, followed by lasting constipation. 15.

CONSTIPATION.—Stool. 81. No stool. 37, 40.

550.—Stool retarded. 47. Constipation. 3, 9, 18, 23, 44, 60, 72, 85, 86. Obstinately constipated. 15, 79. Obstinate constipation for two years. 84. Diarrhœa alternately with constipation. 15.

555.—At first diarrhœa; at last constipation; no vomiting. 15. Green stools: at first thick; then lax. 2.

DIARRHŒA.—Inclination to diarrhœa. 33. Diarrhœa. 54, 57, 60. Purging. 41.

560. Severe watery diarrhœa. 15. Fluid stools. 67. Frequent evacuations of thin fluid. 26. Inodorous bilious evacuations recurring every five or ten minutes. 43. Lax stools without smell, as if in consequence of indigestion. 75.

565.—Evacuations of mere blood and water. 20. Violent diarrhœa, three to four stools per hour; fetid black stools. 15. Anal hæmorrhage. 38. Dysenteric diarrhœa. 34. Dysentery. 56.

570.—Severe flux, with evident alleviation. 8. Diarrhœa and low spirits; soon after, delirium. 15. Diarrhœa with straining. 23.

EXCREMENTS.—Stools serous, not frequent. 80. Frequent evacuations of slimy, greasy masses. 27.

575.—Green stool. 83. Black matters and worms passed by stool. 17. Frequent black stools. 15. The stools contained bloody mucus. 5. Stools at first blackish and hard; afterwards covered with bilious slime. 8.

580.—Evacuations consisting of a white, viscid, slimy mass, forming lumpy masses of the size of a fist. 18. Evacuation of the lining of the primæ viæ with the stool. 24. Tolerably normal looking evacuations were covered with a mass which seemed to be composed of jelly and bile. 1. Two normal stools. 25. Stool normal. 18.

585.—INVOLUNTARY EVACUATIONS.—Involuntary discharge of a great quantity of sharp burning (scalding) water. 62. Semifluid matter escaping involuntary *per anum* just as if one had suddenly opened the pipe of a vessel containing fluid. The evacuations are very copious; at first white, then yellowish, and seem to originate from the fluids drank by the patient. 1. In the later stages, just before death, the stools escape involuntarily in a lying posture. 1. During full consciousness she passed fæces and urine involuntarily without being at all aware of it. 4. Involuntary discharge of fæces and urine. 10.

590.—TENESMUS.—Ineffectual straining at stool. 84. Tenesmus. 18. Continual tenesmus. 85. Urging to stool and urine. 18. Retention of stool and urine with a feeling of necessity within. 91.

595.—Tenesmus and strangury. 87.

EXCRETION OF URINE.—Urine in moderate quantity. 48. Urine copious and dark brown. 19. Frequent passing of urine. 61, 94. Urine oftener than usual. 81.

600.—Urine scanty. 18, 37. Urine scanty, passing with difficulty. 75. Urine not passing at all. 43. Urine suppressed. 62. He neither passes urine voluntarily nor involuntarily. 1.

605.—Spasmodic difficulty in passing urine. 18. Frequent urgency to pass urine, which sometimes passes not at all, sometimes only with pain. 18. Urgency to pass urine which he cannot satisfy; for the bladder is empty, and by the catheter only a few spoonfuls of clear urine are passed. 1. Discharge of urine with much sediment. 3. Urine passed with pain. 23.

610.—Urine passed with burning. 10, 61.

PENIS.—Swelling and intolerable burning of the penis. 61. Penis, bladder, and kidneys give him fearful pain. 61.

MENSTRUATION.—Menstruation not disturbed. 33. Menstruation, which should have commenced, ceased. 4.

615.—Menstruation some days longer and rather more copious. 18. After the monthly courses there occurred regularly the discharge of a yellowish, fetid, watery fluid for some days. Also there passed frequently from the rectum blood, purulent mucus, accompanied with burning pain in that part.

VOICE. PHONATIO.—Hoarseness. 33. Weak voice. 28. Low voice. 27.

620.—The voice almost gone. 25. Voice hollow, speech unintelligible. 1. Voice trembling. 62. Cries out from time to time. 25. Frequent crying out for pain. 1, 15. He spent the night in groaning and cries. 13.

625.—COUGH.—Frequent cough. 2. Cough, oppression of the chest, and painful pricking in the chest. 19. Heavy catarrh extending to both lungs. 18. Left sided catarrh, and the chest overloaded with mucus. 18.

630.—He never coughs. 1.

PAINS IN THE CHEST.—The chest aches. 11. Tormenting pain in the chest and throat, with a sensation of contraction in both. 38. A pricking, tearing, stretching, pressing, burning pain in the chest. 4. No pains in the chest. 1.

635.—RESPIRATION.—Oppression in the chest. 33. Chest oppressed. 12. Violent oppression of the chest in the evening. 43. Oppression of the chest and a feeling of anxiety. 12, 15, 18. Great pressure on the chest; he felt as if he must burst asunder. 28.

640.—Respiration much oppressed. 43, 61. Oppression and pain of the chest. 11. Oppression of the chest. 18. As soon as he walked a little, he immediately felt oppression at the chest. 52. Extraordinary oppression of the chest, with gouty pains of the head and limbs. 54.

645.—Great dyspnœa, with pain in the right side of the chest and shoulder. 79. He breathes with difficulty. 12, 31, 37, 72. Breathing hard, and interrupted by frequent sighs. 62, 87. Short breath. 18. Short breathing, with violent pains in the chest, throat, and abdomen. 11.

650.—Respiration short, accelerated. 1, 25. Respiration short, irregular. 43. Respiration accelerated. 65, 88. Breathing slow. 25. Difficult respiration. 76.

655.—Respiratory movement and action of the heart, weak and quick. 42. Want of breath increasing constantly. 1. He is on the point of choking, and protrudes his tongue. 93. He cries out "I am choking," whilst he rolls about in bed, throws the clothes off to a distance, opens his mouth wide, as if trying to breathe, and remains several seconds in this state motionless. 1. Shortness of breath continually aggravated, and ending in Asphyxia. 1.

660.—Respiration normal. 35. Respiration not disturbed. 44. Inspiration normal, sometimes sighing. 43.

HICCOUGH.—Hiccough, 25, 68, 64, 91. Hiccough in the night. 18.

665.—BACK.—Dull pain in the back, with painful flitting drawing on the outside of the extremities. 81. Pain in the region of the two last *dorsal* vertebræ. 47.

LOINS. Complaining of a straining and tearing sensation and pressure on both loins, especially under the left ribs, where it is also very sensitive to the touch. 18.

SHOULDER.—Intolerable pain in the left shoulder. 76.

UPPER ARM.—Rheumatism (?) of the muscles of the right scapula, shoulder and *humerus*, so that for four nights he did not get into bed; whilst an erect posture, walking or sitting seemed to alleviate the pains. Having recovered after a long time, he was (exactly that day twelve months) again attacked by the pains, without any exciting cause, and they continued eight days. The like recurred for two years. 22.

670.—ELBOWS.—Pains in the elbows and fingers. 15.

HANDS.—The hands icy cold. 43. Trembling of the hands. 33. Eruption on the hands, thumbs, and forehead. 61. Paralysis of the hand; it begins with heaviness, but not combined with wasting. 71.

675.—The hands have never regained their former fulness and strength, and the ball of the thumb has disappeared almost entirely (ten years after). 4. Hands and lower half of the two forearms dark and livid, as in the malignant kind of cholera. 42.

FINGERS.—Sensation fails in the tips of the fingers. 4. Sensation blunted from the fingers, where it is very feeble, up to the wrist, but above that it is normal. 81. Loss of sensation in the fingers, as if everything stagnated there. 15.

680.—Still, after years, numbness of the fingers. 15. In the wrist there was extremely small muscular power. The fingers could neither grasp nor hold smaller objects; those of greater circumference, as the crutches, they could, in some measure at least; although all feeling, even in case of injury, failed the tips of the fingers. 23. Muscular power weakened, so that he can only grasp an object, but not hold it fast. 81. He could not move his fingers. 23. The extensors of the fingers more inactive than the flexors, so that the fingers were always somewhat bent. 23.

685.—The flexion of the fingers is possible, but the extension not. 85. The hand can be extended, but the fingers do not obey their extensors. 85. The contraction of the fingers turned into such a paralysis that she could neither lie down nor get up by herself, nor grasp anything with the hand. 54.

Upper Extremities in General.—Painful swelling of the right hand and arm. 61. Hands and arms lost their moving power. 69.

690.—Lower Leg.—From the knees to the ancle remarkable weight and fatigue. 33. Fatigue and weight in the legs. 12. 15. Convulsive contraction of the legs; they bend under the thigh. 74. From time to time he lies on his back, touching his buttocks with his heels, the knees being raised high and far apart. Suddenly he turns himself round and adopts another posture. 1. Twitchings in the legs, with painful drawing coming from the back. 81.

695.—Cramps of the legs. 40. The cramps in the legs extend upwards. 40. Quiet and sleepiness amidst extension of quite painless cramps from the legs to the abdomen. 40. Very violent pains in the legs, especially in the joints. 52. Violent pain in the left leg, which disturbs sleep. 67.

700.—The left leg and the foot cold, with blue spots up to the knee, and very sensitive to pressure. 67. Complains of great weariness, heaviness, and cold in the legs. 12.

Calves of the Legs.—Cramps in the calves of the legs. 27. Cramp-like contractions in the calves of the legs. 28.

Feet.—Weakness of the feet. 33.

705.—Weakness of the feet lasting for three weeks. 33. Weakness of the feet when using much exertion. 33. Œdema of the feet and weakness. 15. Swelling of the feet, which for a long time afterwards remained weak and heavy. 15. Œdematous feet (after six weeks). 16.

710.—Very serious œdema of the feet, which remained for many weeks. 19. Unbearable itching of the foot and leg. 69. Cramp of the foot. 69. Numbness going to sleep, and coldness of the feet up to a handbreath above the ankle. 18. If he turns himself upon the left side of the body, he can easily move his whole right leg either inwards or outwards; the foot then remains turned inwards; that is, the toes remain directed towards the left leg. But in the left leg these movements are impossible, and the voluntary extending of the foot is on both sides impossible. 85.

715.—Paralysis of the foot. 59. In walking he dragged his feet loose after him; when lying down they lie flat and lifeless. 23. Complete paralysis of the feet. 69. Pain in the feet, which diminish from year to year, but still after ten years have not quite disappeared; and these pains show themselves particularly at the commencement of the menses. 4. Burning of the foot and leg half way to the knee. 67.

720.—Heels.—Ulcers on both heels discharging ichorous matter. 63.

Soles.—The callosity of the heels wore off. 69.

Toes.—Toes cold and pale. 67. Dead feet from the toes to the knees. 81. The extensors as well as flexors of the toes paralysed. 85.

725.—The toes always bent, and can only be extended by the patient's own power very little, and with great effort; but very easily by the hand. Through this weakness of the toes, her gait is heavy and clumsy. 4. Weakness of the toes; the walking is performed on the entire sole of the foot, so that her gait is clumsy. 4. On the toes, especially the two little ones, a very hard, horny skin grew gradually, with burning pain, which rendered walking very distressing. 4. The hard horny skin on the toes very troublesome and burning, 4.

LOWER EXTREMITIES IN GENERAL.—Pain at times along the nervus cruralis as far as the heels or toes. 23.

730.—The lower extremities with some œdematous swelling. 87. Painful cramps in the lower extremities 47. Cramps of all the muscles of the lower extremities, but especially of the *plantaris* of the right foot. 84. Violent twitching of the lower limbs for a week together. 95. Lower extremities paralysed. 64, 92.

735.—Paralysis of the lower half of the body for near six months. 64. Weakness in the muscular system, especially in the lower extremities, so that the gait was unsteady and stumbling. 81. Paralysis of the lower extremities; when he had apparently quite recovered, a new paralysis showed itself exactly two years after the first attack; in this instance, however, attacking not only the lower, but also the upper extremities, and caused anxiety for his intellects. He is now recovered. 46. The lower limbs much wasted in substance. 52.

UPPER AND LOWER EXTREMITIES.—Cold extremities. 10, 39, 86, 88.

740.—Cold of the hands, feet, and face, with tearing and cutting in the abdomen. 91. Cold of the extremities and collapse. 40. Extremities quite cold and pulseless. 42. Extremities and face cool in the afternoon, cold about five o'clock. 43. Cold in the extremities, nose and ears. 67.

745.—Extremities cold and affected with violent convulsions. 56. Prostration of the limbs. 76, 80. Relaxation of the limbs. 44, 80. Prostration and debility in the limbs. 18. Great debility in the limbs. 28.

750.—Debility in the limbs and falling away. 15. Debility and sense of weakness in all limbs. 11. Weight in the limbs. 60. Weight in the arms and legs. 12. Trembling of the extremities. 9, 18, 59.

755.—Violent trembling of the limbs. 26. Trembling and very violent movements of the limbs. 75. Trembling and pricking sensibility in hands and feet. 15. Towards evening, but not in the day, a crawling sensation in the fingers and toes.

81. Frequent sleep and insensibility of the right arm and foot. 83.

760.—Insensibility and a sense of going to sleep in the upper and lower extremities, which lasted through the whole illness, and hindered her from holding objects fast. 15. Sense of numbness in hands and feet, with frightful pains day and night, which for three months scared away all sleep from her. 4. Insensibility in hands and feet. 89. Very complete insensibility of hands and feet. 75. Diminished sensibility; at first in the tips of the fingers, from which it afterwards extended to the hands and arms, and then to the toes, and at last to the feet and legs. 81.

765.—Extremities as if paralysed. 18. Immobility of fingers and toes. 85. He can no longer move his limbs voluntarily. 78. The moving power and strength of limbs diminished, so that the patient could only with difficulty hold anything fast, and his gait became unsteady and stumbling. 81. Partial paralysis of arms and legs, which, however, does not depend on a palsied condition of the *motor* nerves, but on anæsthesia of the nerves of the skin; for although the palms of the hands were very sensitive to the touch, he did not know whether he was holding anything or not; also he could not walk without help, as the soles of his feet were like wooden ones, and did not feel the ground. 95.

770.—Anæsthesia and paralysis of the hands and feet completely established, and equally exhibited in extension and flexion. 23. Almost entire immobility of the limbs, especially on the left side. The power of feeling was merely diminished, not lost. 85. He lost the use of his hands and feet, and at the same time set in violent neuralgic pains in the extremities, which lasted nearly two-and-a-half years, and did not yield even to the strongest doses of morphia. The paralysis lasted about three years. 84. The paralysis of the extremities affected not only the motor, but also the sentient nerves, notwithstanding which the parts were highly sensitive to cold. 84. Neuralgic pains in arms and legs. 95.

775.—Neuralgic pains in the forearm and in the legs from the hips downwards; they seem not to follow the main branches of the nerves, increased gradually to their maximum, gradually decreased again, and were of a lancinating character. Cold air or water aggravated them at once. They were worst between half-past nine P.M. and eight A.M. 84. Fearful pains day and night, generally burning as when one holds a burnt part again to the fire, at times also pricking and then tearing like gout, whereupon sometimes an extraordinarily sudden twitching and plucking sets in. Generally the limbs specially affected were in a continual state of twitching. 4. The burning, pricking, tearing pains, especially in the extremities, affected the patient so much the more severely in proportion as the bodily energy diminished and the sensibility was exalted. 4. Gouty and lancinating pains of the limbs, with immobility and œdematous swelling of the feet. 54. Pricking pains like needles in the hands and feet. 85.

780.—Muscles of the extremities sensitive. 33. Flitting pains in the limbs. 72. Wandering pains of the limbs. 74. Contraction of the extremities. 72. The contractions in the fingers and toes disappeared after a very severe loss of blood by vomit and stool; as they were straitened, they remained in that posture, but seemed as if dead. After a warm bath, life returned into the hands and feet, but the fingers and toes again got bent crooked. 4.

785.—Strong contractions of all the limbs, so that she could neither move these nor stand on her feet. The power of moving returned afterwards, but she could not walk steadily. 58. The flexor muscles of the upper and lower extremities are contracted. 76. Contraction of the upper and lower extremities. 88. The toes and fingers were in perpetual flexion; if they were straitened by external force, they got back to the bent posture when that force was removed. 4. Distortion of the limbs. 25.

790.—From time to time he extended his extremities and remained a few moments in this state of relaxation, when the vomiting returned with renewed violence. 1. Gait tottering and stumbling; on attempting to stand he falls, unless propped up. He can with difficulty even hold himself in a sitting posture; yet the extremities can be moved or pushed, though not without effort, in all directions. 81. He can no longer sit up, stand, or walk, but can make every movement when lying down. 23. Arms and legs perfectly strong and moveable; hands and feet, on the contrary, extremely emaciated, so that without actual organic change the condyles of the bones stick out in unseemly fashion; and with regard to power of motion or sensation, they are so paralysed, that nothing can be grasped firmly, the feet did not admit of being raised, in stepping the whole sole is set on the ground, and in walking they had to be dragged after as dead weights. 23. Hands and feet as if mummified, so that the skin hangs in many folds about the unsightly projecting bones which were not otherwise swollen. 23.

795.—JOINTS.—Pains in the joints. 33. Burning pains in the joints. 54. Weakness in the joints of the hands and feet; they are stiff and often painful. 64.

NAILS.—Fingers and toes emaciated; the nails very hard, brittle, and talon-like. 25. Loss of the finger and toe-nails. 24.

800.—The nails change their colour almost every month. At first as red as fire, then black as if from extravasated blood; after which they gave place to new nails, which were very thin and transparent. 4.

SKIN.—Pricking over the whole skin. 61. Purple spots on the chest and nape of the neck. 38. Large red spots all over the skin. 36. He was red and moist all over. 68.

805.—No ecchymosis nor petechiæ. 1. His whole skin became blue. 1. His veins, especially those of the throat, much enlarged, from which the skin acquired a blue appearance. 1. One can compare his appearance to nothing better than to that of a cholera patient in the cold stage. 1. Swelling of the whole body. 24.

810.—Swelling of head, belly, and feet. 11. The whole body covered with spots like measles. 70. Miliary rash all over the body, except the limbs. Numerous little white vesicles covered the skin, which between the vesicles seemed inflamed. 4. Miliary eruption on the skin, especially in the region of the abdomen. 10. Breaking out of an immense crop of white miliary vesicles, confluent and filled with very sharp fluid, covering nearly the whole surface of the body. 54.

815.—The miliary eruption lasted eight to ten days, ending in desquamation. 54. A violent miliary eruption over the whole body; this was repeated several times in fourteen days, and at last ended in bran-like scales. 62. On the forehead, around the eyes, on the cheek-bone, the shoulders, the upper part of the arm, and the chest an eruption of white pustules in great numbers, which in regard to their form and course resembled small-pox. These were partly isolated, partly confluent, very easily broken, turned into thick crusts, and left very visible scars after them. 85. Rash like that which is brought out by nettles, and little vesicles as in an eruption of miliary. 60. Troublesome itching, and an eruption of little pustules-like scabies, soon desquamating. 64.

820.—Desquamation on a great part of the body, especially on the forearms, with a return of tetters (which had been shortly before cured) on the chin, lasting five or six days. 76. The skin comes off from the head to the feet. 24. Epidermis comes off everywhere excepting the head. 69. The sinapisms caused pain without redness, and brought neither warmth nor swelling on the parts. 1.

SLEEP.—Sleepiness. 2, 18, 40. Constant strong tendency to sleep. 12. The child had a strong tendency to sleep, from which it could only be kept with difficulty. 12. Inclined to sleep at half-past nine in the morning, with disturbed languid eyes. 39. Remarkable tendency to sleep, often disturbed by pain. 12. She became sleepy, without being able to sleep or rest. 43.

830.—Gentle sleep after vomiting. 8. Slept badly. 48. Quiet sleep. 26, 27. Sleeplessness. 18, 19, 23, 60, 76. Restless sleep. 12, 15, 37.

835.—She was awakened out of sleep by vomiting. 25. The little patient slept very well when not awakened by vomiting. 2. Sleepless all night, throwing up everything she took. 53. During sleep complains of headache; first in the forehead, then in the occiput. 2. No sleep, but tendency to slumber. 47.

840.—Slumber, with slight delirium. 47. Sleep at night, alternating with delirium and various illusions. 15. Distressing dreams and nightmare. Even in the day the dreams float before his mind and distract him. 84.

COLDNESS.—Skin cool, and coldness of the skin for many months. 4.

845.—Coldness over the whole body. 10, 11, 12, 15, 40, 43. As cold as a corpse. 24. Skin icy cold, and the face frightfully pale. 1. Skin icy cold, covered with cold sweat, especially on the forehead and temples. 1. Coldness of the face, hands, and forearms. 25.

850.—Chattering of the teeth, frightful distortion of the muscles of the face, with cries that he can no longer hold out against the cold, which made him shiver as if he had the ague. The room had a fire in it, and the temperature was not cold. 1. The coldness of the body could not be diminished by the application of external warmth. Complete failure of reaction. 1. The whole body, especially hands and feet, cold and dry. 43. Shivering. 33. Cold shivering. 82.

855.—Violent chill and shivering. 79. Sudden attack of general shivering. 40. No horripilation. 1. Shivering. 48. Complains of chill, without feeling particularly cold. 12.

860.—Violent chill. 12. Violent shivering chill. 13. Chill, till the teeth chatter, with forehead glowing hot. 16.

HEAT.—Temperature of the skin raised. 28, 33, 40. Skin very hot. 64.

865.—Great heat of the skin. 65. Skin hot and dry. 18. Remarkably dry heat, preceded by chill. 12. Heat. 23, 33. Great heat. 68. Burning heat and thirst. 73. Complains of general heat. 38. Burning heat over the whole body, the skin feeling cool. 39. Sensation as if he would burn inwardly. 81. Equable temperature all over the body. 44.

875.—Temperature of the skin normal. 35. Skin normally warm, without dryness. 85.

PERSPIRATION.—Moist skin, with cold extremities. 2. Perspiration. 37. Perspiration, with increased diuresis. 18.

880.—Frequent perspiration. 81. Very profuse perspiration.

3, 27. Profuse perspiration. 38. Very violent perspiration for several days. 85. Cold sweat. 16, 39.

885.—Covered with cold sweat. 31. Gentle cold sweat. 12. Skin covered with cold, not very profuse, perspiration. 12. Profuse cold sweat. 84. Cold, thick perspiration on the skin. 42.

890.—The whole body covered with cold sweat. 77. Cold sweat on the whole body, disappearing after a quarter of an hour, and then (after being well all day long), returning towards evening and departing just as quickly. 63. Cold sweat, alternating with cold dryness. 12. Fetid sweat all over the body. 62. Skin very dry. 18.

895.—Skin, tongue, and throat dry. 72.

FEVER.—Irregular fever movements. 54. At first gentle fever movements, becoming masked afterwards. 80. Strong fever. 2, 3, 15. Fever and restlessness. 15.

900.—Fever, with stiffness and very violent pains in the swollen legs and feet, which also continued till the fever was subdued on the eighth day. 23. Severe chill, lasting for an hour, followed by great heat, the pulse irregular, at times stopping, violent thirst, severe headache, and such decided contraction of hands and feet, that she could not extend them at all. 54. Aggravation of the heat in the afternoon, thirst, with cold sweat, and contraction of the limbs. 54. Attacks of fever. 23. Every evening an attack of fever. 75.

905.—Regular tertian ague. 76. At first sight one supposes it a case of typhoid fever. Incessant sleepiness, stupefaction, stupid look, ringing in the ears, no pains, redness of the cheeks, slight ophthalmia, lying on the back, paralysis of the limbs and the trunk, great emaciation, perspiring skin, strong pulsation of the heart, with normal sound. Lungs free. Pulse, 95 to 100. Tongue clean, not dry. Abdomen not sensitive to the touch, but drawn in and hollow. Gurgling in the bowels, no diarrhœa, and involuntary urine. 85.

MOVEMENTS OF THE HEART.—Palpitation. 15, 51. Complaints of strong palpitation. 43. Palpitation setting in from time to time. 9.

910.—Palpitation and anxiety. 18. Violent palpitation, pulse quick, full, excited. 12. Heart's action and pulse accelerated. 37. Strong beating of the heart, with small, irregular pulse. 16. Beating of the heart violent, quick, excited, with small, quick, almost imperceptible pulse. 12.

915.—Violent beating of the heart, with complete loss of pulse. 12. Very violent and even painful beating of the heart. 6. Beating of the heart distinct, yet often excited. 12. Beating of the heart strong and hard. 39. The heart acts very violently; one hears a strong blowing sound, whilst the pulse is very full —110 beats per minute. 85.

920.—The sounds of the heart, but especially the "choc," tolerably strong, with the small pulse not in unison. 9. One could scarcely any longer notice the movements of the heart. 12. Increasing weakness of the heart-beating and pulse. 39. Constantly increasing diminution of the pulse and heart-beat. 12. Beating of the heart quite gone. 1.

925.—He complains of no heart-pain, has no palpitation, and no syncope. 1. Action of the heart natural. 39.

Radial Pulse.—Accelerated pulse. 5, 53, 54, 65. Pulse quick and weak. 52. Pulse frequent and small. 2, 15, 19, 28, 43, 51, 61, 67.

930.—Pulse frequent, small, but regular. 12. Excited pulse. 9. Pulse restless and small, yet elevated after repeated vomiting. 43. Exalted pulse. 27. Pulse hard and frequent. 79.

935.—Pulse rather hard and slow. 35. Pulse depressed, hard, and quick. 82. Pulse hardish, irregularly accelerated. 34. Pulse strong. 18, 65. Pulse full and frequent. 67.

940.—Pulse full, not rapid. 18. Pulse full and strong. 64. Pulse small and uneven. 76. Pulse small, contracted, stopping (intermittent). 73. Pulse contracted, frequent, irregular. 63.

945.—Convulsive, small, rapid pulse. 43. Pulse convulsive, rapid, irregular, weak. 62. Pulse small, uneven, irregular, very frequent. 25. Pulse intermittent. 47. Pulse irregular. 75.

950.—Pulse regular, not small, frequent. 28. Pulse varying between 70 and 140, small and irregular. 40. Pulse 75 to 8. 18. Pulse 90, weak. 38. Pulse feverish, 90 at most. 44.

955.—Pulse 90, soft, and at first weak. 39. Pulse 104, full. 38. Pulse 112, tolerably hard. 40. Pulse 115, but soft. 39. Pulse 120, hard, but feeble, compressed. 39.

960.—Pulse 140, irregular. 87. Pulse small, depressed. 27. Pulse miserable. 47. Pulse hardly perceptible. 43. Pulse small, frequent, hardly perceptible. 9, 10. Pulse trembling, scarcely perceptible. 77, 90. Pulse nearly imperceptible, small, contracted, irregular. 1. Pulse and breathing hardly perceptible. 64.

965.—Pulse no more to be found. 12. It is impossible to feel even the smallest trembling of the radial pulse. 1. Pulse early in the morning quiet; about 9 to 10 A.M. rather excited; about noon small, hardish, frequent; from five o'clock till death, after midnight, imperceptible. 43.

PHYSICAL RESTLESSNESS.—Great anguish. 12, 29, 60. Undescribable anguish. 4, 18, 26, 57. Very great anguish of the precordia. 23, 54, 55.

970.—His anguish and restlessness are indescribably great. "Kill me," said he, "or mitigate my pains!" 1. Anguish with outbreak of cold sweat. 63. Great restlessness. 10, 25, 27, 37, 39, 81, 86. After midnight a little restless. 39.

975.—Very restless, with weak and rapid pulse, sunken eyes, and cold extremities. 39. Very restless, unable to lie still one minute. 43. He threw himself here and there constantly. 17. Restless movement more than twenty minutes. 42. Restlessness, tossing from side to side. 15.

980.—He tossed here and there on the bed restlessly. 28. Tossing about in bed. 44. He lay first on the right side, then on the left, and changes posture with incredible celerity. 1. Restlessness and anguish, so that, by turns,he left the bed and threw himself on the floor. 15. He starts up in paroxysms and becomes very restless. 15.

985.—Occasionally he finds her shrinking, twisting, and tossing in bed, making incessant efforts to alleviate her misery by change of posture; generally moaning wretchedly, at times eructating, and crying at short intervals, "I am deadly sick."

42. Great restlessness. She tossed herself about in bed, and in her anguish and distress clung fast to a bystander. 15. He could not stay out of bed, became very restless in increasing pain, doubled himself and turned about in bed, full of anguish and distress. 12. Restlessness, crying out and twisting of the body. 12. Incessant restlessness and contraction of the body. 5.

990.—POSTURES OF THE PATIENTS.—The body bent. 5. He lies in bed bent double. 31. He lies leaning over a trunk, propped on both sides, deadly pale, and retching violently. 31. She lies doubled up in bed, moans and groans. 43. She lay almost always on her back, and only during frightful awakenings sought to adopt a new posture. 42.

995.—Bed-sores on the back; great restlessness and inability to lie on the side. 79.

GENERAL WEAKNESS.—Relaxation. 33. Relaxation and physical apathy. 12. Amazing depression and a state of discomfort. 75. Great debility. 2, 18, 47.

1000.—He was very feeble and debilitated. 32. Great debility; he had to go home and lie down. 47. Debility, so that he cannot quit his bed. 15, 93. He remained a long time very feeble. 15. Deadly weakness; face of cadaverous paleness. 9.

1005.—Quite powerless. 15, 31, 33, 58, 77. Great weakness. 12, 26, 29. Very great weakness. 23, 33, 38, 41, 67. Lasting weakness and relaxation. 33. General weakness of the body, especially the feet. 33.

1010.—She was so weak that she had to be carried into her room. 6. Extraordinary prostration. Kneeling on the floor of her chamber, with her head supported on her brother's arm; she could not hold herself up. 25. Great weakness; her walk was that of a person very drunk. 6. So weak from vomiting that he cannot walk alone. 91. After standing up he fell down on the floor. 15.

1015.—He stepped out of bed, fell down, and wounded the occiput. 5. He can hardly walk. 5. Great debility and bodily weakness, especially after the vomiting, which set in at times. 2. A feeling of leaden weight. 47. He seems very little exhausted. 3.

1020.—INVOLUNTARY MUSCULAR MOVEMENTS.—General tremor. 82. Tremor of the whole body in the morning. 18. Trembling all over the body. 19. Trembling and shaking, with perspiration on the face. 91. He trembled greatly. 20.

1025.—Trembling and formication all over the body. 81. Twitching in the tendons. 51. Starting of the tendons. 91. Some sudden and involuntary muscular contractions. 75. Tonic cramps all over the body. 12.

1030.—Frightful cramps, stiff, and with the body drawn back. 25. Tetanic cramps, in which the body is bent back, the chest raised high up, making him utter a doleful cry. 14. Convulsions. 56, 63. Slight convulsions, lasting some minutes, on which violent vomiting was renewed. 25.

1035.—Convulsive cramps, which moved painfully the trunk, the head, and the limbs (but without the loss of reason), with sighs and groans. 54. Violent convulsions after profuse perspiration, then sleep. 76. Attacks of cramp, which set in from time to time, though always, as it seems, after some external excitement, especially vexation, or other violent emotion. They gave about one hour's notice of their commencement, by drawing in the limbs, with inclination to lie down, but without going to sleep. At the actual commencement, she either experienced a sudden jerk through the whole body, or else an icy chill ran like lightning from the head down the back. At the same moment she lost her consciousness, stretched and twisted herself, and then drew her limbs, especially her arms, together. Meanwhile, also, were manifested convulsive drawings of the muscles of the face and convulsion of the cheeks, from which it has occurred that the under lip, or even the tongue, was injured, and made to bleed by the teeth closing fast. Oftener, however, the convulsion raged in the abdomen, which is very quickly raised and sunk again during the fit, with gurgling in the bowels. After some remission, the attack returned generally once more, before she regained her senses. The whole fit lasts ten minutes at the most; on the return to consciousness she asks for water, which, however, renews the convulsions. 4. Cramps, which appear to begin in the abdomen. 63. In his last moments he had neither convulsion nor any brain symptoms. 1.

1040.—Violent convulsive movements before death. 15.

General Sensations.—Increased sensibility, so that even the gentle opening and shutting of the door of the room, or an unexpected touching of the bed clothes, made the patient shrink; and an unforeseen shutting of the house-door drew tears and caused pain. 4. Great sensitiveness. 90. Sensitiveness to so high a degree that a mere breath caused cramp and convulsions. 49. Sensitive to cold. 40. General pains. 43. He felt himself corpulent. 44. Insensibility to external stimuli. 38.

Fainting.—Paroxysms of fainting. 15, 53. Fainting. 23, 60, 64. Fainting, during which she grew cold all over. 16. Fainting fits coming on interrupted the anguish of the heart and lulled the piercing cries of pain. 8.

Nourishment.—Emaciation. 33. He wastes away gradually. 21. She became amazingly thin. 49. The healthy, well-fed, feminine person had altered in eight weeks into a feeble skeleton, barely covered with skin, and the fresh, red, and white complexion into a pale bluish grey. The integuments of the abdomen were olive green, the back as if ecchymosed, mouth and nose covered with scabs, the hair nearly gone. After a year the muscular system was flabby compared with what it was previously. 4. Relaxation of the muscles. 2, 3. Nutrition of the body not essentially impaired.

ON LARYNGEAL CATARRHS AND THEIR REFLEX PHENOMENA.

By Dr. Kleinert.*

It is a phenomenon of perpetual recurrence, nay, almost a stereotyped custom of modern times, which cannot but be familiar to physicians of larger towns, that persons who live by the professional exercise of their respiratory organs (as actors, singers, prompters, performers on wind instruments, preachers, teachers, &c.), almost without exception, place themselves in the hands of homœopaths rather than practitioners in any other section of the faculty, even to the neglect and rejection of treatment which is often at their service, gratuitously, from other quarters. This predilection and *penchant* is owing to the testimony of those who had to pay dear for their experience. For though these organs, considered from a sanitary point of view, are, in themselves, the most important, *a priori*, of the whole body, whilst, in the cases above adduced, they fall into the scale with double weight, as sources of a livelihood, on the other hand, the treatment in many cases has been, and still is, either owing to scientific apathy, or through the urgency and suffering of the impatient and anxious invalids, or lastly, through fear of poor remuneration, so trifling, careless, indolent, and superficial, that the proportion of sickness and mortality among these classes never need cause astonishment.

---

* From the *Vierteljahrschrift*, ix., 2, page 176.

It is, for instance, an acknowledged fact, that singers of either sex, during the last twenty years, have not remained in undisturbed possession of their voice, *i. e.*, their "capital," for more than five years on the average. And for this sad result they are indebted, for the most part, to their doctors, with hereditary antediluvian charlataneries, and for the other and lesser part (a field to which we shall return by and bye), to frivolous, narrow-minded singing masters, and to extravagant composers. At no distant period by any means, nay, sometimes, even still is practised the method (routine) of combating catarrhal inflammations of the larynx and bronchia, with fomentations, gargles of expectorant infusions, Sal ammoniac, Nitre, Ems and salt spring waters of Upper Silesia, Seltzer water—not forgetting Lapis infernalis and Morphine—and then, when hoarseness or soreness supervened, recourse was had to the so-called "infallible tincture of Pimpernel" internally, whilst externally cataplasms (of temperature according to the clique of the doctor), and, if the malady progressed, Sinapisms, Autenrieth's pock-producing ointment or Croton oil were applied. Pathological anatomy (results of post-mortem examinations) must, ere this, have shown how infinitely destructive, in most cases, was the effect of these, and especially of the last named procedure; seeing that, instead of cure, irritation, enlargement and degeneration of the glandulæ concatenatæ surrounding the sheath of the par vagum, jugular vein and carotid artery, and, consequently, fresh asthmatic and suffocating symptoms used to supervene. Homœopathy, proscribed as a heresy, which, twenty years earlier, accomplished cures, radical cures, and without torture, could not penetrate, in spite of common sense and ocular demonstration.

Since, in the exploration (*pharyngoscopy, &c.*), of the organ of voice, a technical medical appliance, or instrument, can never ensure a complete survey of the parts, whilst those mechanical aids and facilities warranted to us by reflectors, such as Lahrsen's mouth-mirror, by the spatula, by the finger,* including palatometer, plessimeter, and stethoscope, can only suffice partially, so, on the other hand, an exhaustive examination of symptoms is (and ever remains) strictly according to the doctrines of the patriarch Hahnemann, as a means of complete deliverance, and must, as such, form the basis of enquiry. Strictly abiding by Hahnemann's doctrines, and intimately acquainted with his inexhaustible materia medica, I say most deliberately, because it has, assuredly, by this time, struck every attentive physician, that the modern physiological school has impudently profited by the apparently prolix, but comprehensive genius of this high priest of science, who, long before Laennec and his disciples, invented, with linguistic acumen, names for the sounds and sensations of the several organs, especially the lungs, bronchia, and larynx, and made a present of them to the symptom codex and to science. For the Nihilist cannot out of the Zenta Vesta of the old school, name any work, either original or compiled, which renders the normal and morbid sounds of the respiratory organs with such decisive expression, and in such rich variety, as Hahnemann (blowing, crepitating, whistling, snorting, buzzing, piping, hissing, purring, crackling, snuffling, snoring, rattling, wheezing),—a selection of symptoms noticed by *one* organ of sense only—and just as little will he be able to give parallel quotations out of the old and new school in this kaleidoscopic exuberance, listened to by contact with the senses of the patient, and presented to contact with the senses of the physician. That the Nemesis of necessity and of common sense will come, is as certain as that the due recognition of Hahnemann's genius, on the part of the Nihilists, has been refused heretofore, and will be refused hereafter.

---

* One succeeds best, after all, by making the patient push his tongue down with his own finger, and pronounce "a" with his mouth opened to the utmost, and for a deep inspection, bringing on retching by tickling the palate.

The stethoscope, the ophthalmoscope, pathological and microscopic anatomy and chemistry, have their valuable sphere, their exhaustible limits. they are all meagre, shallow, fallacious; for one will still think of the cure, and from the cure pass on to the medicine; from the medicine to the symptom, from the symptom to Hahnemann.*

There is a real necessity connected with the repetition of examination which must not remain unnoticed here. Even without any complication of the laryngeal malady with hypochondriasis or hysteria, patients so affected have usually a pensive disposition, that leads them to imagine they have the symptoms they are asked about. On this account, one should beware of receiving confidently phenomena which do not belong to the normal course of the disease, and which had been denied on previous occasions; these are, for the most part, merely transient reflex actions.

---

* Intentional or unintentional poisonings and provings (*i. e.*, more cautious, conscientious, and scientific than many of the existing provings), will give an explanation. For instance: "*Ammoniac.* A glittering appearance before the eyes as of molten metal." In this case, inflammation of the deeper seated parts, the choroidea, &c., is present, with which amaurosis often commences. Traces of the change must be perceptible in the provers by the aid of the opthalmoscope. *Muriatic Acid.*—Perpendicular hemiopia; thus partial paralysis of the optic nerve, perhaps exudation—extravasation of blood on the choroidea. So also Alumina and other substances cause vision of yellow, perhaps perceptible on the corpus vitrei and the aqueous humour; a purely icteric symptom, which will manifest itself decisively on isolated parts of the body. Symptoms such as under *Secale*—"seeing *treble*," ought to be consigned to the old lumber-room; for here it is easy to perceive that the prover had cicatrices from former ulcers and injuries of the cornea, leading to accidental phenomena, which millions of other provers never can and never will have.

As soon as the examination depending on the information the patient can give is over, we proceed to ocular inspection. Many will find the contrary order of succession more suitable, because it saves time and questions. The fact, however, is not so. In most diseases of the organ of voice, it ensures very little assistance, for this reason—that all the organs accessible to the sight stand, with regard to the importance of the disease in the second class, quite irrespective of the fact that, by inspection in the first instance, a decided and certain judgment upon the size, structure, and colour (as to their morbid proportions), cannot be formed, because we did not know them in their healthy condition. A relaxed or unequal state of the *velum pendulum palati*, elongated uvula, projecting tonsils, the lymphatic glands looking like a string of coral beads, a gorged venous plexus on the posterior walls of the pharynx, may, at first sight, be taken by the physician for the real material cause of the malady, and are often mere *lusus naturæ*, with which the patient under observation has lived for years at ease and in health. The diseased epiglottis, and the red spots on its side, may be seen in many patients, but only now and then, if they press the tongue down or protrude it by violent yawning. In the so-called "œdema of the glottis" we find a strange swelling, a kind of pad around the upper opening of the larynx; the membranous fold between the thyroid and arytenoid cartilages is far thicker and firmer than usual; the touch is excessively painful. In acute laryngytis, pressure between the thyroid and cricoid cartilages, or even between the cricoid cartilage and the hyoid bone, causes pretty severe pain, which provokes marked cough. In tracheitis, pressure on the sides of the trachea also produces pretty severe pain.

PLESSIMETRY.—If the air passages alone are inflamed and no important material disease, either primary or secondary, of the lungs or neighbouring parts be present, then the plessimeter produces no abnormal phenomena. These negative results are well worthy of observation, and greatly facilitate the diagnosis of inflammation of the air passages. If we find no plessimetric indications of pneumonia, pleurisy, or pulmonary phthisis, we must then infer a simple affection of the bronchial tubes.

AUSCULTATION.—The stethoscope indicates no inflammation of the air passages, but only the presence of secreted products, thickening of the parietes of the air-tubes.

It was observed at the outset that dramatic and singing masters, as well as composers, who are bigoted to their own fancies, lay the foundation for diseases of the respiratory organs. Permit us here to take a cursory glance at their practices, and those of the artists themselves. "Time is short, art is long," said Goethe. And when he said this he was not only thinking of the student of philosophy or science, but also of the artist with his excellencies and defects. Industry, ambition, and self-denial on the one hand; frivolity and excitement on the other. And here three kinds of causation come especially under consideration.

1. The rhythm of respiration in the artist's life is quite different; there is entire deviation from that of ordinary life, inasmuch as the physiologically normal rule of human breathing, viz., three short and eighteen long breaths per minute, is quite out of the question. Long sustaining of the tone, with swells and dying away, in singing and playing wind instruments—the delivery of long extended paragraphs of poetry or prose, which do not permit taking breath—compulsory artificial heaving of the chest during the exhibition of dumb excited action—the avoiding of speaking when drawing in the breath—the drying up of the mucous membrane—all these induce more or less turgescence of these noble organs, and with it, a considerable febrile condition.

2. The body in general, but especially the thoracic organs, form the material instrumental sounding-board of the impinging volumes of tone. H. Lauvergne, that talented French physician, whose extensive practice and examination of the most diverse hospitals in all parts of the world enabled him to collect a mass of information respecting life and death, which he has recorded in his excellent work, "The Last Hours and Death in

all classes of Human Society," dwells with special emphasis on this circumstance in the chapter which treats of artists. The frequent appearance of mental affections, especially melancholy and of phthisis among them he derives from hence; he alleges amongst wind instruments, the key bugle is the most pernicious, although one is inclined very naturally to attribute the worst effects to other instruments which, resting immediately on the teeth, conduce still more to the propagation of vibrations; and he ranks next to this a stringed instrument, from which one might think this was least of all to be expected, the violoncello.

3. The body, especially the thoracic organs and the cerebellum, form a species of psychological sounding-board. Music speaks to us with the love of a mother, when our own mother fails; for it comes from the heart and penetrates into the heart; it has power to ennoble the rudest, to raise up the most heartbroken. How much more powerfully, enduringly, and even, under certain conditions, more wearingly and destructively, will it have power to act on those who hope to extend their material and psychological welfare by the range of their voice, and often obtain calamity instead. Let us now consider the arrogant, one might almost say rude pretensions and inventions of the singing masters and of fashion, in opposition to these subtile works of nature. Let us take Mozart and Cimarosa, thus about the date of the rational composition of operas, 1792–98, and of their works, for instance, the Zauberflöte and Matrimonio Segreto; let us at the same time remember that these demanded the widest range of voice, with the most fabulous dexterity, in uttering the words; and then let us draw a parallel with our time, in which the concert pitch has, in consequence of a different construction of the wind instruments, (oboe, clarionet, horn), been raised by nearly a whole note, and we shall find that our composers demand the same compass to the same amount of words, but that, furthermore, they exact from every voice greater strain of vocal power in relation to the volume of tone produced by more massive instrumentation, the same in relation to the longer duration of their pieces and greater variety of expression.

And the sins of the singing masters? They are legion. We must first mention their utter ignorance of the anatomy and physiology of the respiratory organs, which we before intimated. And, though it is not to be demanded of them that, like the instructors of deaf mutes, with the upper half of the body stripped, they should teach their pupils to produce correct tones and to take breath, yet surely the limits of possibility in training the voice should, by observation of the person, be ascertained by them during the first hours of instruction. Then would vanish the folly of wishing, in the case of fleshy tongues and narrow velum pendulum (grand hindrances to volubility of tone) to extort rapidity of execution, though there may, perhaps, be otherwise, most excellent voices; the disorders of stomach and diaphragm induced by eternal hammering and practising difficult and often even impossible solfeggios would disappear; and the hysterical sufferings of the liver and spleen, which also belong to this category, being produced by too long retraction of the said parts, and of the abdominal muscles in general, along with the spasmus glottidis, with cough and hoarseness, brought on by reflex action into the larynx. That very incorrect notion of calling by the name of "chest-tones," those deep notes produced by strong depression of the lower jaw and larynx, and "throat-tones," those in which daily speech is carried on, would be exploded; and the comical production and cultivation of the "falsetto," which may be extraordinarily screwed up till about thirty years (and then, one may almost say, lasts for ever), would become better regulated, and therefore in every way more available. Let us, moreover, reflect that the great body of singing masters are recruited from completely invalided performers, who, along with their voice, have lost the main point, the power of showing how to sing; added to this that they are destitute of a sound study of the theory of music, and that the chaste enthusiasm of a Garcia, a Bourdoigner, a Newa, a Panseron, a Gentilhuomo, a Bank, is of no use to them, as they educated and still educate but a limited class of singers (tenor and soprano, bass and treble), and these again only as long as a healthy body is united with a youthful, fresh, or unworn out voice, and all this without immediate or perhaps any necessity for gaining a livelihood by the voice—this is a small portion of the catalogue of their sins.

C. H., 24 years old, a choleric excitable Hungarian, who, with her Juno-like figure and extremely powerful contralto voice, at first sight gave the impression of a Virago, suffered when I first knew her from fits of laughing and crying, which recurred four to six times a week, lasting from half-an-hour to one hour, and were brought on through vexatious influences, or else through brooding over the condition of her affairs, which was at the time one of extreme depression. The first severe grievances which she had to endure in her professional life, combined with alarm, danger, and want of sustenance (a combination of misfortunes which overtook her shortly after getting over a typhus fever during the siege of Ofen), had been the exciting cause, whilst previous to that nature and no anxiety for the future had sufficed to cure all her little ailments. The narration of these ordinary minutiæ in female professional life, and that in the case of a person otherwise in perfect health, might be considered as rather superfluous, and hardly worthy of notice in the compass of this history of disease. But though one familiar with theatrical life might take no notice of this stereotyped category of the hysterics in actresses and dancers, it would neither be right nor advisable to venture to do so in the case of female singers; because a spasmus glottidis, beginning with scarce perceptible convulsions and contractions, or even a laryngitis spasmodica, at the very first catarrhal or moral affection, may so easily trouble patients of this class, at first imperceptibly, but afterwards in a marked degree. A combination with the last-mentioned malady was at all times manifest in this case, and, though not actually dominant, could be detected by her wheezing breathing and by pressure on the larynx. This, however, yielded, even during the continuance of the moral influences, to a few doses of Hyoscyamus. During fourteen months I constantly found her, both in private circles and on the stage, in the calmest and happiest mood, but was sorry to observe an evident breaking down and woody sound of her upper notes in singing; yet, on account of her excitability and vanity, I noticed it only in the way of a hint. At the end of the fourteen months (Feb. 11, 1856) she sent for me on account of a hoarseness of long standing, which had been treated allopathically without benefit. As I already knew that since our first interview, she had availed herself of the instruction of an invalid singer as talentless as conceited, and had given herself up to his fatiguing method in characters and pieces far beyond the range of her voice, I soon suspected that the catarrh would have found an ample harvest-field in the exhausted muscular parts, the excited nerves and relaxed mucous membranes of the larynx, and (since the shortness of the attack here, as in tuberculosis, cannot be taken into consideration) already amounted to a tolerably established affection. Unhappily, however, I had to deal not merely with this, but also with that gastric affection which, during severe straining and retention of the breath in singing and playing, results from the fact that the diaphragm [stomach] and abdominal muscles are forced into the deepest depression, and to a long continuance in this unnatural position; an affection which manifests itself through gastric derangements, and mostly also draws into the strongest sympathy the branches of the *par vagum* that supply the larynx. To all this were added still the previous fits of crying, along with the clearest traces of laryngitis, brought on by the unfortunate coincidence that the grand rehearsal of an extremely trying piece of execution studied and expected for more than twelve months, fell out precisely at the same time when she felt indisposed not only from the incipient hoarseness, but also from the monthly infirmity, and thus she had got only shrugs of the shoulders and sneering consolations in place of a brilliant reception! Fever had set in with violence, especially in the evening, whilst her nights were marked by restless dreams and exhausting perspirations.

At once *à priori* was my mind made up as to the employment of a remedy whose actual specific effect in such complications had already often surprised me, viz. Cuprum. Staudigl, who is, alas, now so unfortunate, had to add to his manifold excellences the fact that he was not only a devoted friend of homœopathy, but also tolerably conversant with the system. During his repeated residence at Leipsic during Easter, he drew my attention to this medicine; and, as its successful employment was known to me for many years previous, especially in cases of hooping-cough, where the stomach itself, on slight pressure, exhibited the most painful reaction on its own periphery, the œsophagus and larynx, I refused not to take a lesson and a benefit even at the hands of a layman!

Eight drops of Cuprum 6 in ℥ ii. of water, a teaspoonful every three hours, in this case also assuaged the gastric sufferings, which had been allopathically combated in vain by warm cataplasms and Hoffman's anodyne liquid, entirely in twenty hours. The larynx, too, showed itself less sensitive to pressure, the rough hoarse cough was repeated at longer intervals; yet the husky voice, the suspicious signs of laryngitis spasmodica, the febrile reaction, and the fits of crying were little, if at all, relieved. Next I gave Brom. 2, eight drops to ℥ ii. of water, every three hours, and ordered in the evening hours a few doses of Aconite to be interspersed in alternation. I allowed her returning appetite to be cautiously satisfied with thin beef-tea for breakfast, chicken for dinner, and for supper ale posset, in which the milk preponderated, without any regard to the still existing feverishness. Above all I interdicted visits, *i. e.* such as might remind her of her situation and the previous events; recommended cheerful reading, and smuggled away the key of the piano, whereby at least in that quarter any experiment on the correct rendering of the tone was prevented. The next morning gave indication of essential improvement. The fever was found considerably on the decrease; the cough inconsiderable and loosening easily; the breathing free and without any wheezing accompaniment. The night perspiration did not come on till morning, and was even then very trifling. Certainly, late in the evening of the previous day, fits of crying had again occurred, yet their duration was soon cut short by judicious conversation, and the violent sobbing was hardly remarked. Her speech was sonorous; and the voice which she, in spite of all prohibition, tried cautiously to give out, was, according to her account, clear in the middle tones, but a sensation as if the larynx was still swollen and enlarged had soon made her leave off the experiment. Having every reason to be perfectly contented with the progress of recovery, I persevered exactly with the treatment and remedies adopted daily up to this time, and the next day at noon I had the pleasure of hearing the patient complain merely of slight tickling in the larynx, with a cough on drawing breath sharply with the mouth wide open; and of slight chilly shivering and very rare occurrence of the crying fits. In order to remove these few remains, I gave Conium 15, two drops at once; ordered one dose of Aconite to follow in the evening, and on the next day one repetition of the same medicine morning and evening. On the 10th of February this lady, who had been incapable of singing for more than five weeks, was able to resume her activity on the stage.

In a case very similar to the preceding one, where the painful irritability extended from the false ribs over the liver and stomach, Verbascum and Ambra rendered an essential service before I had become better acquainted with Cuprum. From Carduus marianus, whose eminent powers in sufferings of this kind Dr. Pröll, of Gastein, during his residence in Leipsic, could not sufficiently praise, I am sorry to say I have seen no beneficial results.

S. B., a concert singer from Prague, engaged for a course of concerts in the Gewandhaus at Leipsic, had on Tuesday, November 17, overheated herself at a soirée by singing, talking, and dancing; and, either in returning or at her hotel, where she, by an oversight, went into a room which had not been aired, caught cold. On the morning of the 18th I was earnestly requested by Professor Moscheles (to whom she had been recommended, and who by his invitation had unintentionally been, more or less, the cause of her illness) to visit her as speedily as possible, and to employ all practicable means of restoration, or at least amendment; inasmuch as a rehearsal for a morning performance had been announced for eleven o'clock that day, and the procuring of another singer not only lay out of the reach of possibility, but also might be prejudicial to the professional renown of a lady as yet but little established in the musical world. I found this singer, who had some little fever, and was at the moment suffering from impeded utterance and cough, busy at an employment which is pernicious to the unaccustomed, as such, but to invalids doubly so, on account of the heat and the moist disagreeable atmosphere—viz., ironing her concert dresses, an object which, when the party is exposed to the critical eyes of so many of her own sex, even if not disposed to vanity, cannot be so easily dispensed with. The gentle rebukes which I at once administered on the subject, and the fears which I expressed as to her capability on the morrow, she parried by saying that she had done all this from a kind of vegetative instinct, and from external stimulus; inasmuch as she had, during a sleepless night (caused by the attack of catarrh during menstruation), clearly seen the impossibility, or at least the risk, of her performance. After I had removed her fears in regard to the danger to her voice, by explaining that it was not so much the secretion, which was but a natural function, as the congestion of blood to the organs destined for relief at that period, which rendered it most unsuitable for a violent strain of the larynx, but still not absolutely prejudicial, I asked her for a history of her sufferings. Her voice was, as above noticed, husky; the singing tones absolutely refusing to play their part in the higher notes; in the middle ones soon breaking down when slightly forced, or interrupted by phlegm. Mucous membrane of the nose not irritated, but dry; cough, of itself, slight, and with no expectoration; but the thought of it and the trial of a longer breath brings on uneasiness in the larynx with tickling and then slight efforts at coughing. The uvula and velum pendulum palati (known to the patient in their normal condition), of rather brighter red, and more relaxed than usual; tonsils and posterior parietes of the pharynx normal, exhibiting only mucous follicles; auscultation found the larynx and bronchia free from defect; head a little stupified in the morning, with now and then a stitch that was fugitive and easily endured (probably from the ironing); the skin towards morning covered with perspiration, which, though she stayed in bed for it, caused no alleviation; the chilly shivering of the night infrequent, and recurring in a degree hardly perceptible to others; pulse accelerated, pretty full; respiration rather more hurried, and the chest heaving with frequent sighs; feelings, as before noticed, depressed; otherwise everything normal. Without paying any further regard to the menstruation, I ordered the administration, at half-past nine, of Causticum 9, two drops, and at eleven allowed the patient to go, well wrapped up, to the rehearsal, with a positive order, however, that she should merely mark the music. After the rehearsal I ordered her to take light but nourishing food, and then to lie down. She had lain down at half-past one; at three I interrupted this pretty sound sleep, repeated the Causticum, stipulated for rest, strict silence, and a repetition of the medicine about six P.M.

About seven P.M., as I immediately observed from her speech an evident abatement of the catarrhal irritation, although the fever presented some little exacerbation, and the skin only a little moistened, I set aside the first medicine, and ordered Aconite 6, two drops at eight and again at ten, whose well-known sudorific effects I ordered to be reinforced by hot milk and water, half and half.

The night, uninterrupted by disturbing thoughts or dreams, passed off with slight perspiration. By the account of the nurse, who kept up the fire and a gradual current of steam from boiling water, the fits of coughing came on seldom, and without further disturbing the patient. The speech was clear, the head free, the position and colour of the velum pendulum had returned to their normal condition. Notwithstanding these favourable results, I ordered her to stay in bed the forenoon, and to avoid experiments on the capability and fluency of her voice. To promote the clearing of the tone, I advised her to take two drops of Selenium 6 at nine A.M. and at three P.M.

In the evening she sang to the astonishment of the orchestra, knew how to separate well the fictitious and real hoarseness, and had already prepared herself for supernumerary work, with a voice as clear as a bell; at first trembling slightly from anxiety, but afterwards strong and pure.

Dr. G. L., a schoolmaster, in his 50th year, of robust but not over-developed bodily frame, who neither smoked nor took snuff, married twice, and each time to a buxom lively wife (the last still living), after having for more than twenty years performed the arduous duties of his calling without any phonetic impediment, was in the autumn, 1856, suddenly seized with hoarseness after an insignificant cold. Be it remarked, at the outset, that neither auscultation nor percussion, either at the commencement or in the subsequent course of this extremely obstinate case, indicated any changes calculated to awaken actual anxiety, and that the patient, being blindly devoted to homœopathy, persevered in the most exemplary attention to all prescriptions during the space of twelve months. The hoarseness disappeared after the exhibition *pro re natâ* of Hepar sulph., Drosera, Puls., Acid. nitr., Bryon., Phosph. The hoarseness had been combined with scarcely a perceptible inclination to cough, but always with a sore sensation in the throat, and the symptom described by the patient as follows: "I feel that I am talking, and that I have a larynx, without feeling actual pain there." It returned constantly during east wind; and besides, whenever the patient was exposed, after long and animated speaking, to gusts of wind, showers of rain, or wet feet. It continued generally for four to six days, setting in oftener in winter and spring; whilst in summer when he used to go through a milk-cure, and enjoyed perfect rest for four weeks, he had but three or four transient attacks. It also deserves notice, that when once the bronchia were drawn into sympathetic action, which only happened twice, the consciousness of possessing a morbidly irritated larynx ceased for a short time; but that, nevertheless, we could not expect a crisis, or rather a lysis, from an increase of loose and coloured expectoration, because that extremely trifling sputum that was removed from the glottis by hawking (generally in the morning or in the day when the voice was weak even to extinction) remained always the same The expectoration always remained in its usual quantity and quality (saliva with little lumps of the size of groats, viscous, and exhibiting, as it were, fibres like wool); streaks of blood did not appear even with the greatest increase of the disease or the most violent exercise. Still, be it observed, that Lach. never did good, but Phos. effected the most rapid and solid curative results.

In autumn, October 11, 1857, after having for nine weeks had to congratulate himself on unimpeded speech and a complete removal of the tickling irritation, he once more had to claim medical assistance. Unhappily, a few days before a change had taken place in the whole physical and mental condition of the patient, through an extremely severe mortification, which immediately affected his professional career and his pecuniary means; and had fastened on a body, in itself quite strong and full-blooded, the most marked nervous weakness and excitability, associated with fear of death and other hypochondriac and melancholic symptoms. The form of disease present at this time was as follows:—Attitude of the body drooping; complexion pale; eyes restless, easily excited to weeping, and unable to fix on the person speaking to him; hands trembling, their skin perspiring and clammy; occasional headache and rushing in the ears; appetite small and satisfied mechanically; thirst small, generally in the evening, and then only to supply moisture to the larynx; stool hard; night restless from disturbance of thought, unrefreshing, and towards morning, an offensive perspiration; urine scanty, clear as water; speech trembling, querulous, husky, cleared by voluntary (often involuntary) scraping and dry fits of coughing; phlegm sweetish; the larynx had a feel as if swollen and enlarged; the thorax oppressed with a sensation as if something hindered the exit of the breath in coughing and speaking; the tickling and scraping early in the morning on rising, and most severe when lying on the left side.

Although under the existing symptoms Ipec., China, Puls., Dros. and Stannum were most strongly indicated; still I gave Ignatia 12 in order as soon and as energetically as possible to obviate the depression of his spirits, without, however, neglecting the malady of the larynx. The exceedingly favourable operation of this medicine declared itself from day to day so strikingly that, even by the 14th of October, after repeated accurate examination of the patient, and after previous consultation with the family (who by the most careful observation had had opportunity to notice the most striking amendment as to spirits and way of speaking), we could proceed again to the remedy which had been to him a true panacea—viz. Phos. 12. The result exhibited at the end of a week, after three doses per day, justified my confidence as well as my choice. From Oct. 21 he took, with a carefully selected strengthening diet, a dose of China 30 every evening, not so much with regard to the state of his organs of speech, which were restored to their normal condition (*i.e.* still slightly irritable, yet quite available for his vocation), as to act alteratively on his enfeebled general condition; and on the 1st of November we had the pleasure and satisfaction, after he had passed several days of nine hours energetic teaching in the school (which he had not given up even on the anxious days of October 11 and 12), of hearing him complain no more of fatigue, still less of huskiness. The winter, which, especially at Leipsic, is so pernicious on account of prevailing east winds, passed without any more serious effect on him, and nothing but the urgent recommendation of Dr. Haubold could induce the patient to give himself a longer respite than the usual Midsummer four weeks holidays for a tour of recreation. Although two years ago he celebrated the *semi-jubilee* of his professional career, he declared this prolonged absence to be a flagrant sin against the duties of his vocation.

In two cases where the circumstances were somewhat similar to the above case, but where the patients were hysterical females, I saw in Haubold's practice as surprisingly favourable results produced by the administration of Platina, as in the above case, by Ignatia. One cannot be cautious enough in giving Eupion in stronger doses, and such, as to this particular medicine, I should reckon even the 12th potency. In two cases of phthisis laryngea, where alteration of the voice took place without complete hoarseness, I saw the hoarseness commence after Eupion 9, and persist to the end of the patient's life.

C. H., 34 years old, a wealthy master tinman, of exuberant health from infancy, and notwithstanding a wild bachelor life, never affected with any venereal disorder, was, in November 1857, attacked with hoarseness, which neither at first, nor during the whole course of the illness, was attended by alterations in the fauces or bronchia. He could call to mind no actual cause, and only suspected that it set in from an incautious inspiration of the prevalent east wind to which he had been exposed by standing a long time in the street, after working at the blow-pipe in his hot workshop more than two hours. The chemicals connected with this process were not to blame.

After he had for more than seven weeks of allopathic treatment, gone through the whole course, even to the blowing in of Lunar caustic, he turned to homœopathy; and on December 11, because the larynx felt swollen, with short fits of coughing, and the tickling which prevailed in the morning turned into scraping in the evening, he got Laurocerasus 9. The short triumph which this medicine gave, so far that the patient could speak clearly on the morning of December 13, disappeared again by noon, and the same treatment was repeated on the 14th and 15th.

With the general orders not to stand still nor to talk in the street, on account of the prevalent east wind, to wear a shawl constantly over the mouth in the open air, to go home in good time, and not to smoke at all, he took Selenium 6. Results on the 16th and 17th, no favourable change.

From the 18th to the 21st he kept in doors, and took two drops of Mang. acet. 6, every four hours. Besides, poultices of pretty hot oatmeal porridge were put over the larynx every two hours.

The highly satisfactory state observed on the morning of the 22nd changed after he went out at noon, the evil returning to its previous extent. In the evening, during long and animated conversation, his speech was clearer (the contrary from formerly), occasional, not inordinate hawking, brought up paste-like phlegm, which, when on the handkerchief, after the surrounding saliva soaked into the linen, showed a dingy bit of jelly, of the size of a small shot.

For this he took on the 23rd and 24th two grains per day of Stannum 3. The results were no more lasting than before, inasmuch as the inspiration of the east wind brought on all the previous sufferings afresh, however well he might have been in the morning. As the patient, who had treated the whole illness with a certain amount of levity, could not be persuaded to carry out the treatment through the Christmas holidays, I refrained from exhibiting any medicine, as I was informed and knew that he had already, even on common working days, often broken his parole as to the prescribed diet.

On the 28th he came to me hoarser than ever, but also more anxious. All his relatives and friends, and amongst them an allopathic doctor, who happened to be present, had put him into an infernal stew, pictured to him the prospect of consumption with the richest rhetorical embellishments, and, above all things, had made the immediate acquisition of a respirator a positive duty.

Under existing circumstances, I considered it my duty to conceal my own chagrin behind an assumed levity on my part. First of all, I prohibited the respirator, whilst I called his attention—as he plumed himself on his chemical knowledge—to the ozone formation that went on behind its wires, and told him this thick and warm kind of atmosphere, like that common in cow houses, might be of use in tuberculosis, but was evidently dangerous with his apoplectic habit of body, his tendency to *embonpoint*, and his shortness of breath. Hereupon I stipulated for three days confinement to his room, attaching thereto strong promises of amendment, and ordered during this period four grains of Merc. solub. 3, every morning and a four-grain lozenge of Saccharum lactis, impregnated with two drops of Acid. nitr., every evening. This rapid succession of an antidote will make some homœopathists shake their heads and scold. Repeated observations, however, which I made with these very medicines, in a case where, notwithstanding the assurances and protestations of the patient, I believed I ascertained a syphilitic condition not yet in the pronounced form of "secondary symptoms," taught me the value of this method.

And so it happened in this case. On the 2nd of January, I had the pleasure of hearing his voice sound once more in its original, somewhat thick (fett), but clear fashion. All other morbid symptoms had given place to the previous normal condition of health. He had permission, notwithstanding pretty rough weather and east wind, to go out.

On the morning of January 3 he informed me, with a countenance beaming with joy, that he had the evening before lain down free from all traces of his former illness, and had, a short time before, got out of bed equally so. Under these circumstances, I prescribed a repetition of the aforesaid medicines every second day, and on the 10th released him from treatment, perfectly cured.

Opponents of homœopathy, especially some well-known adherents of the new physiological school, allege that the excessively strict diet is the real agent in homœopathy. They take great pleasure (hard and painful as it must be to them) in enumerating the advantages which our system apparently enjoys from the fact that it is chiefly the wealthy and intelligent classes of society who avail themselves of it; and they know how to expand, after the fashion of goldbeaters, the benefits that are all included in the simple word "nursing" (Pflege), to such a degree that our remedies, always spoken of as infinitesimal nothings, completely vanish from the view. Cases, then, which exhibit the value of that curative principle which is never—at least never candidly—interpreted by our adversaries, "similia similibus;" cases which, besides this, clearly prove that for the restoration of the disturbed equilibrium of the human body, there is as little need of ounces and pounds as for that of a well-adjusted balance; cases, in short, which weaken the above-named main lever of the opponents, can never be sufficiently published. May, then, the following cases taken from the reports of the Leipsic Dispensary, cases where not only these auxiliary means, "diet and nursing" were, necessarily, most particularly wanting, but where also, the steady continuance of positive material causes stood in the way as a grand hindrance to the cure—may these, I say, contribute to combat these prejudices.

Franz Sattler, aged 37, carpenter and crier at the Mechanical Theatre of Floutiaux frêres, from Paris. [Mens' List, No. 527.]

The muscular, plethoric patient presented himself during the Autumn Fair, October 25, 1854, to bespeak our assistance for cough and a hoarseness, which nearly amounted to aphonia. According to his description, he had previously, yet never so violently as now, had several attacks of hoarseness, particularly when he had tried to neutralize the fatigue and discomfort of his employment in wet, stormy weather, by the use of spirituous liquors (as was the case this time). On close examination of the mouth and pharynx, nothing striking was discovered. The pricking, burning pain over the whole larynx was aggravated by pressure on the ligamentum crico-thyroideum, and by attempting to swallow. The dry cough, during which neither the thorax nor diaphragm suffered, sounded metallic and whistling. That the chordæ vocales took an active part in the inflammation was betokened by a peculiar whistling on inspiration. Percussion and auscultation exhibited no striking phenomena, further than that at the parting of the bronchia a very slight râle could be noticed. Fever slight. Pulse rather accelerated, strong, but neither hard nor tense.

He took Carb. veg. 6, five drops every four hours. As for the customary regulations respecting diet and nursing, he spoke out candidly that he could not observe them, as his extremely limited means of subsistence neither permitted him to neglect his business, nor allowed him, as a stranger in the town, any domestic comforts. To the objection that he would thereby be prolonging and aggravating his sufferings, he replied by a sorrowful shrug of the shoulders, and promised to avoid, as far as possible, loud speaking, drinking, and letting off fire-works, and Bengal fire. From private inquiries we learnt that he had, notwithstanding these promises, been at work in all these occupations, and moreover, in continued bad weather.

October 28th, he made his appearance, without fever, with slighter cough, somewhat clearer, more articulate speech, and calmer mien. After some gentle reproaches, against which he protested on the ground that he was already three-parts cured, he once more got the same medicine to take three times a day. On November 2nd he could be entered on the list as cured, for his voice was clear and the cough removed.

Johanna Brandt, 34 years old, hawking pedlar. [Womens' List, No. 14.]

With this name presented herself, on January 4, 1854, a personage well known in the town, given to excess of every kind, and, in fact, an old acquaintance of our Dispensary, because she (1), after residing for a year and a half in America, was not at once willing again to attend the allopathic Hospital, which she knew to her heart's content; and (2), because in New York, as well as in Leipsic, she had got to hear much that was favourable about homœopathy.

The patient was affected with the most marked emphysema, partly in consequence of her irregular, fatiguing trade, partly through hard drinking, lastly, in all probability from cicatrized constriction of the larynx. She complained in a voice thoroughly hoarse (and now and then interrupted by single, crowing tones, or fits of coughing), of a constantly increasing hoarseness of her already husky and cracked voice, in consequence of uncommonly stormy weather. To this was joined a cough, especially in the morning, very noisy, and attended with retching, and a viscid sputum, hard to be detached; sharp pricking and burning in the larynx, amounting, especially in the evening, to intolerable pain, but which, even in the day time, never quite abated, during the shouting and chaffering necessary to her trade; moreover, a sensation of throttling in the larynx, and chilly shivering. As the posterior and deeper parts of the pharynx bore the most infallible marks of former infection, and she herself made no secret of it, she got (with special reference to the mercury which had most certainly been employed unsparingly), the second decimal trituration of Hepar sulph., two grains every four hours. She promised, as all the patients do, as a rule, to attend to diet and regimen; but for all that was observed that same evening, and likewise on the second and third, actively employed in her rough business, and that too, in the roughest weather.

On the 7th of January she was received, on her re-appearance, with pretty strong animadversions. When, however, we heard her grounds of exculpation, founded on real poverty, when we learnt that she never came home before eleven, and then wet through, and that, during the New Year's fair, she had no other dwelling-place than a cold, draughty ground floor, no other bed than straw, which she left as early as four A.M., just as tired as she lay down; when she recounted all this in a clearer voice, more free from cough, and thanked us for our valuable services, which had enabled her to breathe more freely at night, and removed the shivering, then we, moved by a mingled feeling of sorrow and joy, refrained from any further admonitions. Though her condition was much improved, yet it was far from being entirely cured; on the contrary, she had of late expectorated little blood-streaked particles of phlegm, by coughing in the morning; and in the evening had again to complain of repeated failure of voice. She now took five drops of Nitric acid three times a day. After three days she presented herself again, and asked for her discharge as perfectly cured, and able to work, but at the same time also, for permission to claim our kindness and skill again in the summer, when she should be able to take more care of herself, and that without sacrifice of business, and could consequently hope for a surer relief from her difficulty of breathing and her husky voice.

Ferdinand Jänich, 38 years old, a discharged soldier and letter carrier. [Mens' List, No. 531.]

The patient, who, furnished with uniform and letter bag, begged for admission before his turn, because his business admitted of no loss of time, had been compelled to inordinate efforts, hurry, and neglect of his health, in consequence of the illness of a colleague. Having been wet through and through, by two showers on the selfsame day, this otherwise hearty man had observed, late that evening, a roughness in the throat and chest, constriction in the pharynx, and a dull pressure affecting the eustachian tubes on each side, to which had been added a swollen sensation in the nose and the first traces of hoarseness. A foot bath and sudorific medicines had indeed brought some alleviation the next morning, but, unhappily, this had not been permanent. His sufferings, notwithstanding the varied employment of expectorant, sudorific, and epispastic medicines, had so increased, that on August 14th, 1854, he was obliged to demand our aid. What appeared from examination of the cavity of the pharynx, and from palpation, was as follows:—Reddened uvula and *velum pendulum*, tonsils a good deal enlarged, yet no difficulty of swallowing. All these parts were proportionately dry and streaked. Pricking, burning pain over the whole larynx, increased by pressure on the crico-thyroid ligament and by trying to swallow. Early in the morning his food regurgitated partly through the nose, partly through the mouth, a proof that the glottis and epiglottis had also shared in the inflammation. The voice altered and whistling. Cough purely laryngeal, with a little gelatinous phlegm thrown up with difficulty. Fever of synochal character. The patient, who at once gave notice that to give up his employment at that moment was absolutely impossible, had Merc. sol. 2, in eight powders, one to be taken every four hours, besides Acon. 6, five drops of which were to be taken before going to sleep. In addition, a warm moist oatmeal poultice was ordered during the first hours of the night, or if it could be done, he was to lay a hot slice of bacon, three inches long and two wide, on the larynx.

August 17th he again showed himself, to announce a striking alleviation of his sufferings. Undoubtedly the pharynx, in all parts accessible to the sight by the aid of pressure with the spatula, showed itself relieved from inflammation, the larynx free from pain during swallowing, pressure, and displacement; but neither the patient nor we could be satisfied with the tone of the voice, which still continued rough and impeded by accumulations of phlegm, which, however, were easily loosened, especially in the intervals of rest, after violent exertion from running up stairs, talking and laughing. The fever was entirely removed. Argentum and Mangan. acet. were indicated to remove these remaining symptoms. We selected the latter, because it was manifest to the patient himself that the sharp, changeable weather of the past days, caused alternate aggravation and amendment in the patient's symptoms, and Manganum has this amongst its symptoms. On the 21st he could be described completely cured.

Observation.—Of the remedy mentioned by Elb in No. liii. 6, of the *Allg. Hom. Zeitung,* Herniania, for the laryngeal disorders of wind instrument players, and Erysimum vulgare for hoarseness in singers, there are no fresh notices. No more are there of the Tr. of Lactuca virosa, which Altschul mentions as prescribed by Carus in his *Handbook,* under " hoarseness."

NOTE —The scale of dilution is not mentioned by Dr. Kleinert, but we presume it was the decimal, as that is most common in Leipsic.—[EDS.]

INFINITESIMAL DOSES AND BUNSEN'S DISCOVERY.*

By DR. CH. OZANAM.

I.

THE scientific world is at this moment occupied with a great discovery. Germany is its birth-place; and France has suffered herself to be distanced in a noble race. This discovery might justly be entitled *the language of light;* its scientific name is *Optochemistry* or *spectral analysis.* We shall attempt to give an account of it, by analysing the translation which M. Rodolphe Radau has given of it in *Quesneville's Moniteur Scientifique* (August and September), and M. Grandeau in the *Annales de Chimie et de Physique* (August, 1861).

Two savans of Heidelberg, Bunsen the chemist, the inventor of the charcoal pile, and Kirchoff, professor of natural philosophy, are the authors of this new discovery. But, as is the case with many discoveries, they found the soil already prepared by their predecessors. A short sketch will shew the part played by each, and will render the subject more intelligible. Every one knows that, when a ray of the sun is received on a prism in a dark room, the light expands like a fan, and forms a rainbow with seven colours, which goes by the name of the *solar spectrum.* Now, if you notice the solar spectrum attentively, you will see it scored by a multitude of lines, some dark, others bright, always situated at the same spots. These are "Frauenhofer's lines," named after the scientific optician of Munich, who discovered them. He studied them carefully, and distinguished the eight principal groups by the eight first letters of the alphabet, for the convenience of indicating them. At first he made out 600, but afterwards Brewster was able to count 2000, having sharpened, they say, his vision by ammoniacal gas, which dissolves the mucus spread over the surface of the eye.

---

* From *L'Art Médical,* January, 1862, page 60.

But the sun is not singular in giving an iridescent spectrum: every light, every star, is also able to give one. Now, whilst the moon, luminous clouds, and the planets, which like mirrors reflect the sun's light to us, give the same spectral lines as that brilliant luminary, each fixed star affects a characteristic mode of arrangement in the disposition of its lines. The dark line D is wanting in the yellow of the spectrum of Sirius; the star Pollux has only very feeble ones. Each of these lights then differs from that of the sun; and this difference, as we shall soon see, evidences in the constitution of those worlds a distinct elementary composition in each star. Brewster soon found that artificial flames emit *rays* of determinate colours. Talbot, in 1826 and 1834, satisfied himself that light emanating from a solid or liquid body (molten metal for instance) gives a complete spectrum; whilst gases in a state of incandescence, or volatilized metals, give one whose colors are traversed by dark lines, which may serve as analytical indices. In 1835 Wheatstone studied the spectrum of the electric light; Vander-Willigen made a drawing of it. Plucker did as much for the electric tubes of Geissler, extolled at the present day by M. Fonssagrives, as a means of illustrating the deep cavities of our economy.

The Scotch physician Swan explained the habitual appearance of the yellow line, by the almost constant presence of chloride of sodium in our atmosphere. Angström and Stockes in 1855 came nearer to the truth, establishing themselves on that principle of Euler, that "if a body absorbs the series of vibrations which it can execute itself, it follows that the same body, heated till it becomes luminous, ought to emit the same rays which it absorbs at the ordinary temperature."

Professor Thompson ascertained after Stockes and Miller, the presence of vapour of soda in the sun's atmosphere. For being dark for the yellow ray D, that vapour prevents their penetrating the sun's atmosphere, and causes a dark line in their place. Lastly, the Abbé Moigno, in his Repertory of Modern Optics, had already hinted the possibility of a general method of spectral analysis. See what he wrote in 1850, "With a little experience we shall succeed in making, by the observation of the lines, an analysis, if not quantitative at least qualitative, of the most complex combinations of very dissimilar metals."—Tom. iii. p. 1224.

Science had got to this point in the question, when Bunsen and Kirchoff announced in December, 1859, to the *Academy of Science*, at Berlin, that, in studying the spectra of artificial flames, they had arrived at the explanation of Frauenhofer's lines, and at some conclusions respecting the constitution of the sun and of the stars. The following are the general facts on which they are based:

1. Every metallic substance in the volatilized state, in a luminous source, colors in a definite manner one or more of Frauenhofer's lines.

2. Those colored flames which have a very marked emissive power for certain particular rays, act upon those same rays when coming from other sources in the way of elective absorption, so as to produce blanks or dark lines in the place of those luminous or colored rays, which ought to exist in the spectrum; thus, for example, the brilliant red line produced by the chloruret of lithium in the spectrum of a gas flame, changes into a dark line when that flame is traversed by the direct rays of the sun. The continued spectrum of Drummond's light (lime, incandescent in the flame of oxy-hydrogen gas), presents the dark line D, when its rays are traversed by the flame of salted alcohol.

As for the electric light, that double line appears also in black under special circumstances, which are perfectly ascertained since 1850, by M. Foucault; it is when the vivid light of the charcoal points is mingled with the feebler light of the voltaic circle.

II.

Let us apply, with Kirchoff, to the study of the constitution of the sun, this relation which exists between the absorbing power and the emissive power, which bodies possess for light.

The sun emits from his incandescent nucleus luminous rays whose spectrum would be entire and without dark lines if it were not obliged to traverse the vapoury atmosphere which surrounds that luminary. This atmosphere, according to the nature of its compound elements, absorbs one or another of the luminous rays, to replace them by nothing but a blank or a dark line; and those dark lines are found precisely in the situation of the brilliant ones which those same vaporised elements would offer in their turn, if one analysed their proper light and their complete spectrum by the aid of a prism. Each, therefore, of Frauenhofer's dark lines indicates the existence, in the sun's atmosphere, of all the substances, whose spectra present a luminous line in the corresponding place.

It follows from hence that, whilst in ordinary experiments, we charge directly a flame of the metallic substance which we wish to examine, and whilst it is the *direct* observation of the ray that characterizes the nature of that body, we must, in order to ascertain the constitution of the stars, proceed with those in the *inverse* direction, and learn which are the black and absent lines, to deduce from them the nature of the substances which have absorbed them; that is to say, to deduce the presence of the solar metals.

This problem seemed at first difficult to solve, but on comparing the negative image of the solar spectrum with the positive images of the artificial metallic spectra, it is easy to ascertain the lines which should be ascribed to such and such a substance. Thus the solar atmosphere must contain the vapours of *soda* and *potash*, because we find, in the solar spectrum, the lines D of sodium, and A and B of potassium, *as black ones*, which indicate that the yellow and red rays of the substances in question have been intercepted at their outset from the incandescent nucleus, by the compound atmosphere.

Kirchoff has, moreover, established the presence of *iron* in the sun, a substance remarkable for the great number of its lines (70 between D and B) of *magnesium* (3 lines in the group B), of *chromium* and of *nickel.* On the contrary, *copper, mercury, zinc, cobalt, antimony* and *lithium* do not exist there, nor the precious metals *gold* and *silver.* Lastly, we find there no trace of *silicium* and *aluminium,* those two elements of quartz and clay, so widely distributed over our globe.

It may be objected that these spectral variations are due to the radiation of space, or to the terrestrial atmosphere; but this cannot be, for in that case they would be the same for the stars, which, as we have seen above, is not the case, for the line D of sodium does not exist in the star Pollux nor Sirius. But there do exist certain lines which Gladstone designates by the name *atmospheric lines.* These appear especially at sunset, in cold and dry weather; they are wanting, on the contrary, when the sun is high and the weather *hot* and dry. Azote by itself seems to produce almost all the luminous rays of atmospheric air: its spectrum so well studied by M. Morren, of Marseilles, presents a wonderful appearance. More serious objections have been raised by the astronomers; the majority of them, especially M. Faye, regarding the existence of the sun's atmosphere as merely hypothetical. "The aspect of the *aureola* during total eclipses of the sun, varying from one place to another, at short intervals, entangled with rays that are straight, curved, brilliant or dark, in the form of a lyre, an ostensoir or a plume of feathers extending here and there to distances double, treble, and even six times greater than the ray of the sun, by no means suggests the idea of an atmospheric envelope." However, a recent opportunity of verification must have presented itself. On December 31st of this year there was an eclipse of the sun, of which we do not as yet know the result. If the spectrum of the areola which is produced around the moon presents an inversion of the solar spectrum, *i.e.*, if Frauenhofer's lines are replaced by coloured lines, shining here and there on a darker ground, the existence of a solar atmosphere ought to be completely demonstrated.

In case it should be otherwise, it will be necessary to abandon that hypothesis, and seek elsewhere (perhaps in the extreme thickness of the luminous strata of the photosphere reacting on each other) the cause of certain luminous rays being absorbed.* For his experiments Kirchoff made use of Steinheil's apparatus. This is a small triangular camera obscura, in the centre of which is a prism of flint glass, or of hollow glass filled with bisulphuret of carbon, a substance of high refracting power; at the three sides of the camera are three lenses, one furnished with a collimator, having a linear slit, directs on the prism the light which has to be analysed; the other almost opposite, magnifying four diameters, is destined for the eye of the observer; the third, placed sideways and illuminated separately, is destined for the micrometer which serves to measure the specific lines. The metallic spectrum is procured with Bunsen's hydrogen gas lamp, or "illuminating lamp."

When little light is given, all the secondary lines disappear, whilst the principal one is detached on a black ground. But, to analyse the metals, we have to employ the electric light furnished by Rumkorff's apparatus of induction.

It is then necessary to have two spectra at once, that the eye may easily apprehend their differences, and to contrive that they should be placed side by side, separated by a slight band of shade, so that it is easy to see whether the coincident or variable lines are found in the two images.

Kirchoff has found that the rarest metals, as *erbium* and *terbium*, are recognised without difficulty; and, what is remarkable, that the lines characteristic of each radical element are always identical, whatever be the chemical combination of the metal, and whatever be the flame by which it is heated. This, no doubt, is owing to the fact that all the salts under examination are decomposed at that high temperature, and reduced to the state of a vapour purely metallic: but the intensity of the lines increases with the temperature of the luminous source.

---

* *L'Institut, Journal Universel des Sciences*, p. 375, 1861.

III.

We will now mention the curious researches of these two Savans, regarding the principal alkaline metals.

The reaction of *sodium* under the test of the spectrum is more perceptible than that of any of the others. The following is the proof of this: in a room of sixty cubic metres, a mixture of sugar of milk, and three milligrammes of chlorate of soda was burnt at the opposite extremity to that where the flame was furnishing the spectrum: the vapours spread through the air, and at the end of a few minutes there appeared the yellow line of sodium, which remained ten minutes and then disappeared. Now, according to the contents of the room and the weight of the salt employed, analysis indicates that in that case the eye could easily detect the spectral reaction of a three-millionth ($^1/_{3,000,000}$) of a milligramme of soda. Thus we have obtained unexpected results. In studying the atmospheric spectrum, we ascertain, for instance, that more than $^2/_{3rds}$ of the earth's surface are traversed by currents of chloride of sodium, whose impalpable powder impregnates the air that passes over the ocean. Without doubt this salt is destined to furnish to infinitely small creatures conditions adequate to their preservation. "Perhaps also," as Kirchoff remarks, "the dissemination of this antiseptic substance is our preventive of epidemics. It would at least be curious to observe whether variation in the brilliancy of the line N A does not bear some relation to the different phases of an epidemic; or again, whether contagious miasms may not be revealed by means of perturbations induced in the lines of the atmospheric spectrum."

Lithium is indicated by two lines; one yellow L I β, the other red L I, and less perceptible than that of *sodium.* Its reaction, however, can render perfectly visible less than the nine millionth ($^9/_{1,000,000}$) of a milligramme. M. Bunsen has arrived at the important conclusion, that *lithium* is one of the substances most widely diffused over the globe, though always in an "infinitesimal dose." It has been discovered in sea-water, in the ashes of sea plants, in the orthoses and granites of the Odenwald, in tobacco ashes, the leaves and twigs of vines, in the grapes and wheat of the valley of the Rhine. The milk of animals fed on those crops, human blood and muscular tissue reduced to ashes, also exhibit traces of it, as Dr. Folwarczny has shewn. A great number of mineral springs, Dürckheim, Kreuznach, Ems, Plombieres, Wildbad contain it equally.

When ordinary analysis is incapable of discovering the presence of this metal in a quart (litre) of mineral water, one drop suffices to detect it with certainty by the optochemical process.

Potassium betrays itself by a continued spectrum, of great length, with two specific lines: one K A and red, in place of A of Frauenhofer; the other, K α β, also corresponding with a black line in the solar spectrum. A third line, on the blue band B, only appeared with a vivid light. The presence of $^{1}/_{1000}$ of a milligramme was recognised without difficulty. The ashes of a cigar, placed in the flame of the lamp, easily showed the yellow line of *sodium*, and the two red lines of *potassium* and of *lithium*. The spectrum of *strontium*, more complicated than the others, is characterized by the absence of the green zones. It presents eight lines; six red, one orange, one blue. The presence of *strontium* in sea water has been determined by analysing the precipitate which incrusts the steam boilers. By exploding seventy-seven milligrammes of chloruret of strontium in a room containing 77,000 grammes of air, it has been possible to establish the presence of $^{6}/_{100,000}$ of a milligramme of *strontium* in that atmosphere.

The spectrum of *calcium* is distinguished by a very brilliant line C A β in the green; another not less vivid, C A α in the orange; and one very difficult to observe in the blue. As in the case of *strontium*, the $^{6}/_{100,000}$ of a milligramme was again well made out. The spectrum of *barium* is very long, and presents three specific lines B A α, β and γ. The presence of $^{1}/_{1000}$ of a milligramme was ascertained.

IV.

But the optical analysis is not content with disclosing the presence of certain bodies disseminated in quantities almost imponderable. It has arrived at results still more valuable, by leading to the discovery of elements unknown up to the present day. It is thus that M. Bunsen has effected the isolation of two new alkaline metals, both more powerful than *potassium*—viz., *rubidium* and *cæsium;* and M. Crookes has found a third substance—*thallium.* This is the way they made the discovery. Bunsen had submitted to his lamp (Rumkorff's electric induction lamp) the sediment of the saltspring of Dürckheim, and found two new blue lines near the line Sr δ of Strontium. He discovered also, in deposits of the analysis of the lepidolite of Saxony, two red lines of great brilliancy, between Sr δ and Ka β. He inferred from this the presence of two new substances; and, to insure himself of it, he had 80 tons or 36,400 kilogrammes of the waters of Dürckheim evaporated; and he analysed 150 kilogrammes of lepidolite from Rozna, near Hradisco, in Moravia. After having eliminated all the known substances, there actually remained some grammes of two new ones. He named the first *cæsium,* and the other *rubidium,* after the colours which they communicate to the spectrum (*cæsius* sky blue; *rubidius* red). As to *thallium,* discovered by M. Crookes, it is characterized by a single line of green on a black ground between Ba λ and Ba η. This new metalloid, of the sulphur class, has been found in a seleniferous deposit at Tilkerode, in the Hartz mountains; but it is met with in much greater abundance in the native sulphur of the isles of Lipari, and in certain pyrites from Spain. The two first exist in such small quantities that the 80 tons of mineral water yielded but 6 grammes of *cæsium,* and the 150 grammes of lepidolite about 0·36 centigrammes of oxyde of *rubidium.* To these three new simple substances, of which we have spoken as due to the spectral analysis, we must add a fourth—*dianium,* discovered in March, 1860, by the celebrated chemist, Van Kobell, who extracted it from the tantalites of Tammela, from euxénite and æschynite. Its existence is, however, questioned by M. Rose. It rests with Bunsen to give it a definite existence or death, by subjecting it to his beautiful method of analysis.

V.

Such is the *résumé* of the first operations due to the new method—Optochemical analysis, and of the grand and unexpected consequence to which it is leading us. It is easy to foresee that henceforward the natural sciences must undergo this novel test. Geology will hence find a certain analysis of the various soils, and mineralogy a singularly neat and precise method of determining rocks. Astronomy sees opening before her a field as illimitable as the number of the stars which she will have to study, and will henceforth teach men of what elements God has made the worlds.

"What signify then," as M. Foucault says, "the thirty millions of leagues which separate us from the Sun? Each substance, reduced to vapor, vibrates, like a harp string with a sound peculiar to itself, emitting its rays into space like luminous notes of unutterable tone, and capable of traversing the greatest distances. The prism expands his innumerable rays in the spectrum; they are there, so to speak, numbered in order; and if they contain signs characteristic of substances known amongst our elements, the inference is inevitable; those substances necessarily belong to the Sun."

VI.

But medicine will equally have to claim her share of improvement and progress towards perfection.

The study of poisoning cases and of forensic medicine will find in Optochemistry a sure method of ascertaining the nature of the poisons.

Hydrology will be obliged to repeat all her analyses to detect the presence of *lithium*, *rubidium*, *cæsium*, and *thallium;* and, as an instance, we will give the two following analyses of Dürckheim water, by Bunsen himself, in which each substance is investigated to the $^1/_{100}$ of a milligramme:—

	Saline Mineral Water of Dürckheim, of 1000 parts.	Mother liquor from the same Salt-springs, of 1000 parts.
Bicarbonate of lime	0·28350	
——— of magnesia	0·01460	
——— of protox. of iron	0·00840	
——— of protox. of magnesia	traces	
Chloruret of lime	3.03100	296·90
——— of magnesium	0·39870	41·34

Chloruret of strontium .	0·100810	———	8·00
Sulphate of strontian .	0·01950	———	0·20
Bromuret of potassium .	0.02220	———	2·17
Chloruret of potassium .	0·09660	———	16·13
——— of sodium .	12·71000	———	20·98
——— of lithium .	0·30910	———	11·09
——— of rubidium .	0·00021	———	0·04
——— of cæsium .	0·00017	———	0·03
Alumina . . .	0·00020		
Silica . . .	0·00040		
Azote . . .	0·00460		
Free carbonic acid . .	1·64300		
Sulphuric acid, traces	———		———
	Total	Total	

In Germany the presence of ***rubidium***, ***strontium***, and ***lithium*** has been just discovered this year in the iodo-bromurate waters of Hall (Upper Austria); the two latter metals have been found also in the mineral waters of Gastein (Salzbburg) [*Cosmos*, xix. p. 316, 1861]. In France, a young and clever chemist, M. Grandeau, treading in the steps of the scientific professors of Heidelberg, has just announced the discovery of five new substances in the mineral water of Bourbonne-les Bains—viz., ***lithine***, ***strontian***, ***boracic acid***, ***cæsium***, and ***rubidium*** (*Revue d'Hydrologie*, 4th year). These last bodies are even in considerable quantity; for nearly 2 grammes of them have been extracted from 10 quarts (litres) of mineral water (*L'Institut*, 1861, p. 380). He has also found indications of them in the water of Vichy; but no trace in the water of the Dead Sea, though so rich in alkaline chlorurets.

VII.

Lastly, homœopathy is about to be enriched by a new means of very important verification for her infinitesimal medication. It is a fact that she has too often been reproached with inability to submit her remedies to the control of analysis, in order to assure herself of their presence, and of their correct preparation. Henceforward that verification will be easy, at least for the lower attenuations. We can, in fact, by the spectral analysis, detect the millionth of a milligramme, *i. e.* a quantity equivalent to the 4th dilution. I am well aware that several homœopathic physicians, Rummel, Colombier, and Mayrhofer (*Rapou Hist. de la Doctr. homœop.*, t. ii. p. 422-5) have professed to ascertain the presence of medicines up to the 10th and 30th dilution by means of the solar microscope; but their assertions, being too meagre in details, have always left some doubts on my mind.

Nevertheless, certain privileged substances, with highly colored reaction, have been followed very far; and, as an impartial example of the ancient method, I ought to quote the following, due not at all to a homœopath, but to Dr. Thomson, in speaking of the divisibility of substances. (David Low, *An enquiry into the nature of the simple bodies of chemistry.*) "He dissolved 1 grain of nitrate of lead in 500,000 gr. of water, and then passed through it a current of sulphuretted hydrogen, which perceptibly tinged the whole liquid mass with black (by forming sulphuret of lead).

Now 1 gr. of water is equal to one drop; and that drop, extended, can cover a surface of 1 inch square. With an ordinary microscope one can distinguish the millionth part of a sq. inch.

The water then could be divided into 500,000,000,000 parts. The lead contained in the nitrate weighs 0·87 gr.; the sulphur 0·13 gr. An atom of lead can only weigh the 6,000,000,000,000th (6 billionth) part of a gr.; whilst the *sulphur* combined with it ought not to weigh more than the three billionth part of a grain, or $1/_{3000,000,000,000}$.

So that, in this case, the eye perceives a quantity equivalent to the 7th and 8th dilutions.

I will complete this calculation (by this time rather an old story) by the data which the science of our day can add to it. I have seen, in the workshop of Froment, our celebrated manufacturer and natural philosopher, the millimetre divided into 1000 parts, perfectly appreciable by the microscope. Now, one drop of water can cover 3 sq. centimetres (hardly more than an inch), and thus represents 30,000 parts in length; which, raised to the 2nd power (or "squared") to represent the area, give no longer one million, but 900,000,000 (or 900 million) of parts visible to the naked eye in 3 square centimetres. The whole of the water then could be divided into 45,000,000,000,000,000 parts (45,000 billions), and the sulphur represents $^1/_{3,000,000,000,000,000}$, or one three thousand billionth of a grain, *i.e.* the 9th dilution; the 1st being expressed by 1 gr. of the substance.

Thus we may affirm that the 9th dilution, if it is properly made, contains still (or at least may contain) the material substance, and not merely the medicinal power separated from its substratum and communicated to a neutral vehicle. But this extreme point of penetration into the infinitely small is only perceptible to our senses in rare cases of marked and persistent reaction; and even if those means indicate to us the undoubted *presence* of a substance, they do not necessarily determine its *nature*. Most frequently we only obtain white or colorless precipitates; the smallest traces of foreign substances suffice to modify the coloring, and to prevent the recognition of the substance.

On the contrary, in the spectral analysis, the colored lines are not at all altered by the addition of new bodies. The spectra are superimposed, and succeed each other regularly; the position of the rays in the spectrum implies a fundamental chemical property, the nature of which is as immoveable as the atomic weight. In proportion as one is exhausted and effaced, the next makes its appearance, to be developed in its turn, according to the order of its calorific capacity and volatilizability; and one can at once study the nature of the substances, their number, and their reciprocal relation.

But, in medicines, it is not sufficient to advance a fact; we must also prove it. I therefore wished to assure myself, independently, of the results which the new method of analysis could give us; and, getting myself initiated into the secrets by Rumkorff and M. Grandeau, I have already been able to verify several products belonging to our materia medica. I should have wished to experiment first upon the chloruret of sodium, for of all the substances it is the most sensible to analysis; but it is so disseminated in the atmosphere (and especially in the confined air of a laboratory like that of the normal school), that the line D was permanently present, and rendered the necessary comparison impossible.

I have attempted to verify the presence of the medicine in the following preparations :—

Chlorate of potash, 2nd and 3rd trituration.
———————— 2nd dilution.
Chloruret of potassium, 2nd and 3rd trituration.
———————— 2nd and 3rd dilution.
Chloruret of lithium 2nd trituration.
———————— 2nd dilution.
———————— 3rd dilution.
———————— 4th dilution.

I recognised no trace of the active substance in the two first. One only, a pinch of the 2nd trit. of chlorate of potash, seemed to give indications of the specific line, but not sufficiently apparent to leave the least certainty. But the chloruret of lithium furnished me with admirable results.

An infinitely small fragment of a drop, collected on a platina wire as fine as a hair, bent into a loop at the end, was exposed to the flame. This fragment of a drop, appreciable by very delicate scales, was found to weigh half a milligramme. It was, therefore, the 10,000th part of the entire dilution. Now, not only with so minute a quantity did the specific line of lithium appear in the 2nd dilution, but it was also perfectly visible in the 3rd dilution, and easily verifiable by any one.

The 4th dilution at first offered but very doubtful indication; but, on concentrating it to one half, the red line re-appeared. If we consider the trifling quantity of matter under examination, we shall be aware that it is so infinitesimal as to pass, *per saltum*, over the interval between 2 dilutions, and that in reality we appreciate in that fragment of the 3rd the precise quantity which ought to enter into the 5th, since the 5th contains the 10,000th part of the 3rd. We might then, with a 3rd dilution properly made and easily verifiable, compose the 5th directly, with a certainty of introducing into it the substance in a still palpable and evident form.

Finally, here are the results set down in figures :—

The 1st dilution contains . . .	0·05	centigrammes.
2nd	0·0005	„
3rd	0·000005	„
½ million of the 3rd contains . .	0·0000000005	„
½ ———— 4th concentrated to	0.000000000025	„

Our astonishment becomes still greater if we reflect on the nature of the *chloruret of lithium*. This salt contains but a 10th part of lithium; so that the very 1st dilution, instead of containing 1 grain of the substance, which thus reveals its presence, contains in reality only 5 milligrammes; also the reaction of 5 centigrammes of lithium (1st dilution) has been perfectly visible up to the 4th dilution, and might have served to form the 6th directly, by the procedure above pointed out.

Along with this analysis, which opened to us so fruitful a path, we sought in vain for the presence of lithine in the 2nd *trituration* of the chloruret of lithium; whether because this mode of preparation is less favourable to the analysis than dilution (which I believe), or because the triturations actually furnish a less regular and less constant composition.

After all, the negative conclusions do not at all invalidate the astonishing result which we *have* obtained, and which has given us, by means of our numbered dilutions, an approximation fifty times more infinitesimal on the divisibility of the lithine, than that which Bunsen obtained by charging the air of a room with metallic vapours. So I purpose following up this work with the greatest care, and extending it to all the metallic substances. I shall seek for the causes of error as well as the means of rendering the analysis more perfect, and shall strive to establish for each substance the maximum of divisibility which still permits us to ascertain its presence.

I can now bring forward a fact for the consolation of those who believe in the two easy alteration of the homœopathic remedies. Each of the dilutions which we examined was acidulated with a drop of hydrochloric acid, in order to facilitate the experiment; and for all that, the lithine appeared with all the regularity of its proper nature. That infinitesimal quantity was not in any respect influenced by the presence of an acid in a dose proportionably so colossal!

The new method therefore instituted by the two German savans inaugurates for our art, as well as for all the sciences, a real advancement. It will soon become general, applicable to all the elementary bodies, and we shall be able to repeat, after M. Dumas, "that the physical sciences have not made a happier effort since the days of Lavoisier."

This revolution in the method of analysis, by giving an importance hitherto unknown to infinitely small quantities, will perhaps exercise a salutary influence on many prejudiced minds; it will dispose them to receive with less repugnance and indignation the therapeutic doctrine of the action of infinitesimal doses. By that discovery, in fact, Hahnemann forestalled, and, so to speak, predicted that of Bunsen; he raised medicine to the level of other sciences, by creating for it a method analogous to that of the infinitesimal calculus ("limiting ratios") in mathematics, the atomic and molecular doctrine in chemistry, the theory of the ether in natural philosophy, the cellular theory and microscopic studies in normal and pathological anatomy. Nor did this *Novum Organum* remain, in his mind, in a state purely speculative; for he used to cure the sick with doses of which the most profound science is now scarcely beginning, half a century after that genius, to recognize the presence and to suspect the value.

Early in January, M. Rumkorff having had the kindness to place at my disposal an apparatus by Steinheil (above described), I was able to resume my experiments at home, with more care, working in total darkness, and fencing myself round with the greatest precautions; and I arrived at results still more complete.

The *chloruret of lithium* was then recognized in a drop of the 4th dilution, which gives us 0.000,000,005, *i. e.*, the composition of the full 5th dilution.

The *lithium*, properly so called, was recognized in a drop of the 5th dilution, *i. e.*, in the equivalent of the 6th, 0.000,000,000,005, or 5 billionths of a milligramme. This preparation had been made, not approximately, but by weight and measure. But I was particularly anxious to experiment upon *soda*. It was necessary, for that purpose, to obtain a spectrum perfectly pure, in which the line of soda did not already exist naturally. I effected this by working in a very pure atmosphere, and by lighting the apparatus with the lower portion of a long flame of alcohol: that part of the flame being bluish, and of small luminosity, is especially favourable to the operation.

By these means I obtained a spectrum nearly dark, cognizable, with difficulty, by a faint light on the side of the green, and free from any line of soda. I then tried the several dilutions, and obtained certain signs of the presence of the soda not only in the 4th and 5th dilutions of chloruret of sodium, but even in one single drop of the 6th. That drop, appreciable by a very delicate balance, weighed 3 centigrammes. Consequently, the substance appreciated was equivalent, in figures to 0.000,000,000,000,03, or three hundred billionths of a milligramme, *i. e.*, a quantity even less than that which ought to form the 7th dilution.

Here seemed to be the last appreciable degree of the subdivision: drops less bulky, which weighed but 1 centigramme, though tried over and over again, did not give any clear and decisive result. Let us observe here, that chloruret of sodium contains $^1/_3$ of sodium and $^2/_3$ of chlorine. But, as one can always skip over one dilution, and with half a milligramme of the 6th (of which we are sure), form an 8th dilution *directly*, it follows that, for the eight first dilutions, we can be rationally and physically certain of the presence of the medicinal substance in its vehicle. The third *trituration* of sea salt is not so easy to recognize; we are obliged to make a thick paste of it with very pure hydrochloric acid, to carbonize the *magma* with a lamp, then to moisten this carbon afresh with hydrochloric acid, and then burn the whole in the flame employed for the analysis.

After all, these difficulties in the experimentation in no degree invalidate the astonishing result which we have obtained, and which has given us an approximation 90 times more infinitesimal on the divisibility of chloruret of lithium, and 10,000 times more so for chloruret of sodium, by means of our numbered dilutions, than that which Bunsen obtained by charging the air of a room with metallic vapour.

It is but right to say that that distinguished savant was not proposing, as we were, to seek the furthest point to which matter is still cognizable by analysis; he was satisfied with demonstrating the power and infinite delicacy of his method.

VIII.

Analysis of Gaseous and Volatile Substances.—Whilst we can easily analyze the earthy metals, by volatilizing them in the flame of gas; whilst we succeed in studying the spectra of fixed metallic substances by means of electric volatilization, the examination of gaseous matters, or such as are too readily volatile, as ammonia, chlorine, bromine, iodine, sulphuretted hydrogen and nitric acid, &c., require different apparatus and other precautions. We have, in these cases, to enclose the substance in "Geissler's tubes," of which we have already said a word, and on which we shall here expatiate further.

Geissler's tubes are capillary tubes from 30 to 50 centimetres long, provided at certain distances with a dilatation or bulb, of larger diameter. These tubes are dried with the greatest care, and then as perfect a vacuum as possible is made in them, by filling them with boiled mercury; lastly, the mercury is expelled by introducing the substance (a vapour or a gas), which we wish to examine. A partial vacuum is then restored in the tube, and the gas previously introduced is exhausted, not entirely, but so as to leave only a quantity almost inappreciable, forming a vacuum within from 4 to 2, or 1 millimetre. The tubes are hermetically sealed, and they are ready for experimenting.

The following is, according to Plucker, what is observed in the analysis. (*Cosmos*, t. xiii., p. 307, 1858.) On passing the electric discharge through the capillary tubes (Geissler's), filled with highly rarefied vapours or gas, and on observing the light of it through a prism furnished with a magnifying lens, we obtain spectra widely expanded, and scored with streaks or lines either brilliant or dark, more or less narrow, more or less dilated.

The gas enclosed in these tubes is so rarefied that, in general, it would be impossible to prove its presence either by the aid of the most delicate balance or by that of chemical tests; nevertheless, the spectra are magnificent, and perfectly characterize the gas which has produced each of them. We can, by examining the bright or dark lines, not only recognize the gas contained in the tubes, but, in the case of a compound gas, we can be assured that decomposition has taken place before our eyes, and that certain component elements have disappeared in consequence of their combination with the electrodes.

The spectrum of hydrogen manifests itself by a dazzling red line, a blue, and a violet.

That of nitrogen is known by fifteen dark grey lines, very fine, of exactly equal breadth, which appear in the red, below the red of hydrogen, and reach as far as the orange and yellow.

Ammoniacal gas, after being decomposed by the electric current, presents a spectrum in which one at once perceives a coalition, a super-position of the spectra of the simple gases which have separated—viz., hydrogen and nitrogen.

Chlorine, *Bromine*, and *Iodine* offer very beautiful spectra, the great similarity of which are a fresh proof of the intimate relation which subsists between those three bodies so closely connected in chemical classification.

For these three last bodies a combination is formed immediately with the negative electrode of platina.

Along with the last traces of ponderable matter, the electric current ceases also.

Substances composed of two simple gases are instantly decomposed. We obtain thus the super-position of the spectra of the two simple gases; spectra which it is impossible to obtain with the compound gas itself. Thus it is with the vapour of water, ammoniacal gas, the protoxyde and the oxyde of nitrogen, and nitrous acid.

Sulphurous acid, carbonic acid, the oxyde of carbon, all being composed of a simple *solid*, with oxygen, are only decomposed into their ultimate elements gradually.*

The analyses of Plucker preceded those of Bunsen and Kirchoff; and it is surprising that those savans have not noticed the labours of their illustrious brother at Bonn. These analyses were not confined to simple substances, for we may see, as we have already noticed, certain substances enclosed in the tubes decomposed under our own eyes by electric action; and also, under certain circumstances, recomposed. It is thus that the magnificent spectrum of sulphuric acid is transformed gradually, like the "dissolving views," in the spectrum of sulphurous acid; then, after a sufficiently long interruption of the current, it returns to its original appearance, because the sulphurous acid gas is replaced by the vapours of sulphuric acid. It is just the same with the spectrum of *seleniated hydrogen;* under the influence of the electric current, the gas is decomposed, the selenium is deposited on the sides of the glass, and we see the spectrum of the hydrogen alone. After interrupting for a few moments the electric current, recomposition takes place, and we again find the spectrum of seleniated hydrogen. (*Cosmos,* 1862, and xix., p. 307.)

---

* Plucker, at a Meeting on August 4, of the Society of Natural Sciences and Medicine of the Lower Rhine Department, On the electric discharge in spaces containing highly rarefied gases.

If we wish now to examine the different homœopathic preparations of these substances, we must, as far as possible, employ triturations, or dilutions by glycerine: the medicinal vapours, ammonia, iodine, or bromine, will separate themselves under the influence of the vacuum or electricity, and we can examine them alone, without being hindered by another spectrum.

But, when obliged to use aqueous or alcoholic dilutions, we ought first to study the spectrum of these substances—the spectrum of the oxygen, hydrogen, and carbon, which compose water and alcohol; then we shall recognize, by the super-added lines, the presence of the medicinal substance whose spectrum is super-imposed on that of the *vehicle.*

This difficult study demands great attention and much practice.

ANALYSIS BY COLOURED FLAMES.—There is still another method, quite old and more simple than that of Bunsen, although less perfect and generally applicable, for it can only be applied to a small number of substances. We will, however, point it out, because it is within the reach of everybody, and its real value is not nearly appreciated.

This is the analysis by coloured flames and heat. Certain substances colour, *directly,* the luminous centre where they are volatilized.

Soda gives a *yellow* flame; the compounds of baryta a greenish yellow; lithium a purplish; strontian a jet of orange-red and blue; the salts of lime orange-red (except the borate and phosphate).

The salts of potash, of ammonia, and of proto-chloruret of mercury, colour the flame with violet; the compounds of arsenic and of antimony with livid blue; those of tellurium with greenish blue; those of selenium and of lead with azure; the chloruret of copper blue, bordered with purple; the bromuret of copper blue, bordered with green; all other salts of copper emerald green. The salts of barytes and boracic acid, yellowish green. The borates and phosphates also yellowish green, when heated along with concentrated sulphuric acid.

The compounds of molybdenum also give a greenish flame; the tellurians and osmic acid bluish green.

Now, by the aid of this simple flame, we obtain astonishing results.

For this purpose, we employ the pale bluish flame of gas, of alcohol, or oxide of carbon. We fill a slender platina wire, ending in a ring, with a drop of the substance to be analysed; or, if it be a trituration, we make a paste of it with very pure hydrochloric acid. Then we put the platina wire, not in the centre, but on the bluish edge of the flame. As soon as the liquid (or paste) is volatilised, we see the specific colour appear, but only for an instant.

In order to succeed, we sometimes have to burn, at first, the powder that we are examining, then to moisten it afresh with hydrochloric acid, and heat it over again.

By these means, simple as they are, I have been able to recognize the sulphate of copper in 1 grain of the 3rd trituration, and in 1 centigramme of the 3rd dilution, which is equivalent to 0·000,001 (or one thousandth of a milligramme).

Lithine, in 1 drop of the 3rd dilution, and in 5 centigrammes of the 3rd trituration.

Soda, in 1 milligramme of the 5th dilution, *i. e.*, in a quantity equivalent to the 7th dilution, concentrated to one half, which is expressed by 0·000,000,000,000,1 (or 10 billionths of a milligramme).

For certain substances more volatile and odoriferous, the flame is not necessary; it is enough to heat the platina wire and to lay it on a small quantity of the trituration which we wish to examine. The substance is thus volatilized, and we recognize it well by its odour. We perfectly discern this in 1 or 2 centigrammes of the 3rd trituration of ammonium carbonicum, a preparation which I had previously considered not trustworthy, because of the easy volatilization of that substance. That which I examined had been prepared three years before, and came from Catellan's excellent establishment.

Musk was recognized by its perfume, on applying the platina wire to an atom of the third trituration, which, in the ordinary state, is inodorous.

These facts suffice to show us not only that the triturations are trustworthy preparations, but also that they *tend to fix volatile substances and odoriferous emanations in the substance of the inert body which serves as their vehicle.*

We should obtain a much greater number of reactions by experimenting sometimes with the flame of the blowpipe alone, sometimes with the aid of a solvent or flux, hydrochloric or sulphuric acid, bisulphate of potash, nitrate of cobalt, borax or the double phosphate of soda and ammonia, &c.

All are in a capacity to repeat these simple experiments; but these will not supersede the necessity of having recourse to the method generalized by Bunsen, which alone can distinguish between bodies that have similar reactions (as, for example, boracic acid and copper, lithine and strontian), so as to give absolute certainty.

ON PELVIC CELLULITIS.

By R. MacLimont, M.D., M.R.C.S., & L.M.,

Physician to the Bath Homœopathic Hospital.

It is somewhat remarkable that so very frequent and formidable an affection as inflammation of the cellular tissue of the female pelvis should, to so great an extent, have been almost completely overlooked by authors on diseases of women.

It cannot be that this is a new disease, or one becoming more frequent in all classes of society. Why is it, then, that it is only within the last few years that any detailed and satisfactory information has appeared of so distressing, and often fatal a disease, and one, too, of almost daily occurrence?

The reason is, that up to a comparatively recent date, accoucheurs, both English and foreign, were wont to regard the very striking group of symptoms constituting pelvic cellulitis as so many indications of metritis, peritonitis, phlegmasia dolens, &c., whilst those not very unfrequent cases occurring in the non-puerperal, or even single state, were too generally referred to cystitis, fibrous tumour of the uterus, abscess of the rectum, hip-joint disease, mesenteric tuberculosis, ulceration of the cervix, &c.

In the hope, therefore, of being able to throw some little additional light on this obscure and very serious affection, I am induced to embody in this paper some of the more important details of nine well-marked cases, which have come within my own observation during the last ten years; and I beg that my homœopathic brethren in particular, whether practising midwifery or not, will give this subject their very serious attention, for I feel assured that sooner or later in the course of their career, they will be called upon to treat some alarming and obscure cases of ill health, solely depending upon the existence of acute or chronic abdominal cellulitis.

In treating of cellulitis, it may be well to clear away any mistiness that may exist in the reader's mind as to what I mean by the term; but to the right understanding of it, as well as recognition of it, we ought to have some general idea of the anatomy of the pelvic fascia. It is impossible, however, within the prescribed limits of a paper in this Journal, to enter at all minutely into such a subject, nor is it necessary for our purpose that we should do so, if we simply bear in mind the positions which the uterus and ovaries, the bladder and the rectum, relatively bear to one another.

By pelvic cellulitis, then, I mean *phlegmonous inflammation of the cellular tissue within the folds of the peritoneum or broad ligaments of the uterus,* and *not* that form of disease known to surgeons as psoas abscess, in which the inflammation is limited to the tissue connected with the psoas and iliacus muscles; nor yet to those collections of matter in the vicinity of the rectum, which are so common an accompaniment of pulmonary tuberculosis. Neither is this affection to be confounded with abscess of the uterus or ovaries; or with fibrous or cancerous softening of these organs; nor yet with displacements, or fibrous deposits on the posterior wall of the uterus; or, lastly, with scybala in the rectum.

But it is, perhaps, even more frequently in the acute and recent form of this disease, and as occurring in the puerperal state, that pelvic cellulitis is liable to be overlooked or confounded with other forms of abdominal inflammation; and as it is chiefly in this early stage that much benefit may be derived from remedies, I shall endeavour so to point out the symptoms as to make it easy for any careful and competent practitioner to recognise this formidable malady, should he at any time have to encounter it in the course of his practice.

Though I do not consider that cellulitis is by any means limited to the puerperal state, there can be no doubt, that in the majority of instances, it is more or less connected with the parturient process, though we shall see, by and by, that in all the cases under observation, there had existed previously a degree of well-marked uterine disturbance, evidenced by amenhorrhœa, dysmenorrhœa, menorrhagia, ulceration of the labia or cervix uteri, tendency to abortion, &c.

What, then, is the history of a case of pelvic cellulitis? The woman, in all probability, has had an easy labour; all has gone well with perhaps the exception of a placenta somewhat unusually adherent, and which a time-pressed or officious medical attendant may have seen fit forcibly to detach; or, the secundines having been naturally expelled, convalescence may have proceeded uninterruptedly for some days, or it may be some weeks, when, through exposure to cold, or some imprudence in diet, such as partaking of a draught of cold water, or from sitting up too soon, inattention to the state of the bowels, or other indiscretion, the patient is seized with a more or less decided rigor, followed by flushing and perspiration. The rigors often recur at regular intervals, and as they are usually followed by hot skin and perspiration, they must not be confounded with paroxysms of quotidian ague. Early in its course, cellulitis may also be mistaken for an undue continuance and aggravation of the after pains, but the diagnosis will be assisted by remembering that cellulitis does not *set in* before the sixth or seventh day after confinement, and is attended with shiverings, succeeded by deep-seated throbbing pain in the *right or left iliac fossa;* the lochia are either checked or wholly suppressed, the flow of milk is arrested, the breasts becoming flaccid; the pulse rises to 110, or even 120, though it may retain its soft and elastic feel, which is not the case in peritonitis; the tongue is coated with a whitish fur; there is a degree of nausea, and even vomiting, seldom excessive; the bowels are usually constipated, and, as a diagnostic sign most important of all, there is very generally, even in this early stage of the disease, a more or less marked degree of *dysuria;* as also a feeling of bearing down; a peculiar facial aspect, indicative of anxiety; frontal headache and other symptoms of constitutional disturbance.

One very striking symptom of cellulitis, puerperal or otherwise, is a certain painful sensation in one or both legs, not confined to one or two spots, as the course of the femoral vessels, or the popliteal space, as in phlegmasia dolens, but an undefined feeling of soreness, and a great disinclination on the part of the patient to extend the limb. Usually but one leg is affected, and this the one corresponding with the inflamed lateral ligament, right or left, as the case may be, and the affected limb is either flexed on the abdomen, the patient lying on her side, or it is drawn up, the dorsal decubitus being observed as in peritonitis.

In cellulitis occurring in the puerperal state, the peritoneum may become sympathetically and secondarily affected, so that we may sometimes meet with a certain amount of tenderness on pressure, and even of tympanitis, but both in a less degree than in pure peritonitis. The diagnosis is further assisted by our frequently being able to detect a fulness, sometimes even amounting to a considerable swelling, in the groin. This is generally very hard; and highly painful to the touch.

On examining per vaginam, this canal will often be found hard, hot, and inelastic; the uterus may be found high up, low down, or pushed to one side, according to the situation and size of the tumour, which can generally be felt on *one side of the uterus,* and in the direction of the right or left sacro-iliac synchondrosis. It may be thrown forward on the bladder, or bound down by adhesive inflammation to that viscus, or it may incline towards the rectum, producing in the former case, *painful and constant micturition,* and in the latter, *distressing tenesmus* and congestion of the hæmorrhoidal vessels. The pain occasioned by the limbs being put on the stretch is probably caused by pressure being thus made by the tumour on some of the distributions of the lumbar or sacral plexus of nerves, and the want of circulation and feeling of coldness so often complained of, may arise from the arrest or disturbance thereof, from the same cause.

Puerperal cellulitis is, for the most part, a highly acute affection, and as it but too seldom terminates in resolution, the prognosis must depend upon the extent of the suppuration and the strength of the patient's constitution to bear up against it. When the inflammation from the first runs high, with a small and rapid pulse of 110 to 120, feverish hot skin, furred dry tongue, total suppression of the lochia and milk, frequent rigors, vomiting, delirium, singultus, &c., little hope of recovery can be entertained; and should the patient's strength carry her through the inflammatory stage of the disease, there is always a danger of her sinking under the hectic from which she must necessarily suffer even when the pus has found for itself an outlet through one or other of the natural channels, such as the vagina or rectum. I have met with one or two instances in which the matter failed to find for itself an outlet, and appeared to have been absorbed. Such cases are always tedious in their course, and attended with great constitutional disturbance.

Puerperal cellulitis may also give rise to general peritonitis, and so destroy life, or, the pus finding its way to the surface, the patient may sink under the wearing effects of chronic abscess.

Not unfrequently, however, the patient survives the acute stage of the disease, and at a period varying from three to six, or eight weeks, rises from the "lit de misere," but not, alas, in a condition to resume her ordinary pursuits or avocations. Should the nature or the existence of the disease have been overlooked in the first instance, as, unfortunately, is too often the case, then the patient is told that her symptoms arise solely from weakness, and she is exhorted to "make an effort" and to "throw it off," the belief of many patients and their injudicious though well-meaning friends being, that a return to daily duties or to daily toil is an infallible cure for almost every bodily weakness. But this can only aggravate tenfold the mischief that already exists; and what might otherwise have been conducted to a safe and speedy termination, thus lapses into a weary and painful case of chronic cellulitis.

But should the patient, by reason of a good degree of constitutional strength and vigour, have survived the exhausting, wearing effect of an acute attack of this disease, or, as I have already said, should it have been overlooked or neglected in its forming stage, it will not be long before she finds herself compelled to have recourse to the help of her medical adviser, and her symptoms will now be as follows:—Very considerable weight and bearing down in the hypogastric region; *urgent desire to urinate,* the patient often complaining of a feeling of *obstruction* to the free flow of urine, though on the catheter being passed, the bladder will be found contracted and empty; the urethra, in such cases is often much elongated and very tortuous, owing to its being considerably displaced by the change of structure in its immediate vicinity.* The urine, too, frequently contains a considerable amount of vesical mucus, is of an alkaline reaction, and low specific gravity; though occasionally I have met with the very reverse conditions. The patient usually complains of painful and difficult defæcation, and on this account it is always incumbent on the medical attendant to see that the rectum in particular is never allowed to accumulate any considerable amount of fæces; otherwise these, hardened as they usually are by reason of the torpid condition of the bowels which very commonly follows in the wake of this disease, press upon the enlarged and highly sensitive tumour, and thus not only aggravate the disease, but cause great distress to the patient. It sometimes happens, however, that instead of constipation, we have a relaxed condition of the bowels to combat, the cause of this being the irritation set up in the rectum by the pressure of the tumour upon it.

---

* In all such cases it is safer and easier to use the gum catheter, rather than the usual metallic instrument.

In addition to these symptoms the patient will be found to complain of occasional rigors, followed by flushings and night perspirations; loss of strength and flesh; parched mouth; the tongue red, dry, or furred; the lips cracked; appetite perhaps unnaturally good, amounting even to craving; pulse 90, small, and weak; and the skin moist. The body also will generally be bent forwards (the patient observing a stooping attitude), and any attempt to straighten it is attended with a considerable increase of pain. There is also very generally a feeling of uneasiness, and sometimes even of positive pain, in the right or left groin—as the right or left lateral ligament may happen to be affected—and on this account the patient sits or lies a good deal, and generally with the affected limb drawn up so as to relax the abdominal muscles.

Should the medical attendant, on eliciting the above information from his patient, be led to suspect the existence of pelvic cellulitis, and to press upon her the absolute necessity of a vaginal examination, and this being acceded to, and he further possessed of that indispensable requisite to a right diagnosis in all female diseases—the *tactus eruditus*, he will probably discover something like the following state of things.

On the finger being passed into the vagina, it will be remarked that the passage is both hotter and harder than natural. The uterus will be found either low down (prolapsed) or high up, pushed to one side, anteverted, or retroverted, according to the site and size of the pelvic tumour. This can generally be felt as occupying the region of the right or left lateral ligament, and if the index finger of the right hand be carried forward *by the side and in front* of the uterus—the bladder having previously been emptied—and the left hand placed on the hypogastrium, the examiner will not be able to bring the fingers of the two hands at all near each other; whilst the effort to do so will occasion a degree of pressure on the thickened and inflamed lateral ligament exceedingly painful to the patient.

Most commonly, a hard tumour, not well defined in its outline, and varying in size from a pigeon's egg to an orange, will be felt between the fingers, or thrust aside into the right or left iliac fossa; or the tumour may be displaced backwards, and lie quite in the hollow of the sacrum, when it may easily be mistaken for a fibrous tumour in the posterior wall of the uterus, or a retroflexion of that organ.

Cellulitis is not always limited to the broad ligaments, for it may occur in the cellular tissue between the uterus and bladder, or—as is more frequently the case—in the recto-vaginal septum or sulcus. It is therefore necessary to examine the patient per rectum, and this is best done by introducing the index finger of the *left* hand into the bowel—the corresponding finger of the *right* hand being in the vagina—when a very thorough exploration of the whole pelvis can be made, and a satisfactory conclusion arrived at. But it will require some diagnostic skill on the part of the examiner, especially in certain obscure and difficult cases, to avoid mistaking a fibrous deposit or tumour of the womb, as well as a displacement of this organ, for a pelvic tumour. The introduction of the uterine sound will always settle this point, for in fibrous tumour the sound will pass into the *enlarged* cavity of the uterus some three to six inches; whilst in retroflexion or anteflexion the introduction of the instrument will rectify the displacement, and so clear up the difficulty. The diagnosis in the case of ovarian cysts, especially the unilocular form of the disease, is also attended with some difficulty; but the position the ovary occupies in the pelvis, the absence of rigors, dysuria, painful or difficult defæcation, pain in the limb, the absence of fluctuation in making an *external* examination, and the history of the case, will generally suffice to settle the point. From general puerperal peritonitis the differences are also sufficiently well marked, for in cellulitis the *tenderness on pressure* is confined to the region of the right or left lateral ligament, or to the groin, and is not general as in peritonitis. Neither is there any considerable amount of tympanitis in pelvic cellulitis, unless, indeed,—as sometimes happens in puerperal cases—the peritoneum becomes involved, but even then the peritoneal symptoms are always somewhat masked and kept in abeyance. The pulse, too, in cellulitis is neither so hard, so small, nor so frequent as in peritonitis; the vomiting, if present at all, is not urgent, nor does the disease run so rapid a course as child-bed fever, which, moreover, usually sets in a day or two earlier after confinement than puerperal cellulitis.

Uterine phlebitis may be distinguished from cellulitis by the pain and tenderness in the former being confined to the region of the uterus, and in the legs, to the sheath of the femoral veins and the popliteal space. The appearance of the limb or limbs in phlegmasia dolens is also characteristic, being swollen, white, tense, and shining, as also exquisitely painful, whereas there is little or no alteration in the appearance of the leg in cellulitis, and the pain is more generally referred to the groin and hypogastrium than to the limb itself.

The lochial and breast secretions are more completely arrested in uterine phlebitis than in the affection under notice; whilst the presence of dysuria, painful defæcation, and bearing down will also assist us in forming a correct diagnosis; but in every case of doubt or difficulty we should at once have recourse to a vaginal examination, as that alone can decide the point.

Having detected the existence of a tumour either within the folds of the broad ligaments, or in the loose cellular tissue in the vicinity of the uterus, we should endeavour to ascertain its exact position, relations, size, &c., and also whether we can detect fluctuation in it. In its early stage, cellulitis is marked by very acute inflammation, lymph is rapidly and extensively effused and infiltrated into neighbouring organs, so that instead of a rounded and regular tumour, we shall often find an irregular, hard, immobile impacted mass, binding the uterus and bladder, or uterus and rectum together.

Suppuration being by far the most usual termination of pelvic cellulitis, the practitioner will be anxious to ascertain whether the pus should already have made an outlet for itself, and this is not only a point most important to establish, but one often very difficult to ascertain, for, in a great many instances, it either escapes by the rectum or the vagina, and this without attracting the patient's notice. Such is very generally the case when the abscess discharges itself into the vagina; for, if in the puerperal state the patient or her nurse mistakes the flow of pus for a return or increase of the lochial secretion, whilst if the patient be in the non-puerperal state, the discharge is attributed simply to an increase of the leucorrhœa, which is almost always an intercurrent affection. When the abscess communicates with the rectum, the patient is much more generally cognizant of the fact, stating, that after an unusual degree of straining at stool, a gush of fluid takes place, which, on inspection, turns out to be pus mixed with blood; but however the evacuation may take place, it is invariably followed by a marked abatement of all the symptoms, and the patient from this time begins to recover; I say begins to recover, for the convalescence is usually very gradual, and the woman may have many relapses. On making a vaginal examination now, a marked diminution in the size of the tumour will be perceived, but it will often retain its hard, doughy feel for months afterwards.

In all the cases I have examined, I have never yet been able to detect the point at which the pus escaped into either of the two natural outlets. It is probably exceedingly minute and valvular in form. I have occasionally thought that I could feel a slight indentation—a thickened ring of mucous membrane, as it were, but neither the eye nor the probe verified this. Happy is it for the patient when the abscess opens into either the vagina or the rectum, but unfortunately this is not always the case. I remember one instance in which the pus made its way to the abdominal parietes, and pointed in the neighbourhood of the anterior superior spinous process of the ilium; this case occurred in St. Bartholomew's Hospital, and recovered. In another case which came under my notice at the London Hospital for Diseases of Women, when I was house surgeon to that Institution, the abscess communicated with the bladder, and gave rise to a very severe and protracted attack of cystitis; this patient also recovered. In another case, which occurred in the practice of a friend, the pelvic tumour suddenly collapsed, and its subsidence coincided with as sudden an attack of peritonitis; and from this we concluded, with reason I think, that the abscess had opened and discharged itself into the peritoneal sac. This patient all but died—the attack being one of great severity, but eventually she got well. It is said that such an accident as I have described is always fatal, but this case—if we were correct in our diagnosis, and there seems no good reason to doubt it—disproves the correctness of such an assertion. My own belief is, that a small quantity of pus may escape into the abdominal cavity and be absorbed, whilst there can be no doubt that in the injection of ovarian tumours, with a view to their obliteration, a small quantity of iodine or other irritant has often escaped into the sac, and the patient recovered. In tapping ovarian cysts also, and likewise in the operation of ovariotomy, I have myself frequently witnessed the escape of some of the contents of the cyst, blood, &c. into the cavity, and no bad result follow. It is therefore not improbable that the escape of a small quantity of pus into the peritoneal sac may only give rise to a manageable attack of peritonitis, not necessarily fatal.

The abscess may also communicate with a fallopian tube when the pus may get into the uterus; or it may pass along the round ligaments and point in the labia externa. But such instances are rarely met with, the usual course being that in which the abscess opens into the vagina or rectum, and into the latter more commonly than the former.

The insidious nature of this disease, and the marked tendency to relapse, should lead the practitioner to give a very guarded prognosis in most cases; for he will do well to remember, that however satisfactorily a case may seem to be progressing, the abscess may at any time *re-form*, when a return of all the old and unfavourable symptoms may be expected.

Although cellulitis occurs more frequently in the married than the single state, yet it would appear in both to be connected with and preceded by a considerable degree of uterine disturbance, which perhaps is more to be regarded as its remote cause than the various accidents usually assigned as causes by patients themselves. I do not, however, mean to assert that cellulitis may not sometimes have for its sole cause one or other of such accidents, as exposure to cold in child-bed, sitting up too soon, partaking of cold drinks, neglect of the bowels, &c. Indeed in one of the cases under notice the attack was clearly due to an injudicious and unskilful removal of an adherent placenta; in another to the use of the forceps, and I remember a case in which a severe attack was brought on by a persistent attempt to introduce the uterine sound and the intra-uterine stem. Certain operations on the uterus, such as dilatation of the canal of the cervix, slitting up of the same; attempted catheterism of the fallopian tubes; the application of potassa fusa to indurated or hypertrophied labia uteri, &c. may also give rise to an attack of cellulitis, but in most of the cases which as yet have come under my observation there previously existed a more or less marked degree of derangement of the uterine functions. For instance, in *all* the cases under notice there was obstinate and profuse leucorrhœa from the very commencement of menstruation. Abortion occurred more than once in six out of the eight cases in married women. Dysmenorrhœa and menorrhagia were prominent symptoms in two of the cases, whilst the ninth, which occurred in a single woman, was preceded by a severe form of ulceration of the os and cervix uteri. The *exciting cause* of the cellulitis in this case was a severe sprain of the back in lifting a heavy weight. This was followed by rigors, flushings, severe pain in the pelvic region, &c.; and in the course of about six weeks, on straining one day when at stool, she passed about two tablespoonfuls of pure pus, after which she experienced great relief; the pus, however, continued to discharge per rectum for about eighteen months, and her convalescence was very protracted.

The treatment of pelvic cellulitis is a very wide subject, and one upon which I can only here throw out a few general hints. To be salutary it must be energetic, for it cannot be too forcibly impressed upon the mind of the practitioner that he has to treat a highly acute affection, and one in which he ought, by every means within his reach, to endeavour to bring about speedy resolution, and so prevent the formation of matter. I say speedy resolution, because I have found that unless the inflammatory action is soon arrested—viz. within twenty-four hours from the occurrence of the first rigor, there exists but slender hopes of preventing the formation of an abscess, and of saving the patient from a long and wearing illness under which she not very unfrequently sinks.

On the very first occurrence of rigors, Aconite or Veratrum viride ought to be administered; but to be of use, these medicines must be given in *low* potencies and at short intervals. I consider it worse than useless to give highly attenuated medicines in a disease in which irreparable mischief may be effected in a few hours. We must, therefore, give the medicine indicated in a sufficiently low potency and in such a dose as to bring the system under its influence *within a few hours*, otherwise the patient will have but little reason to thank us for our interference, or we to congratulate ourselves upon our success. Aconite 1st decimal, or even (in very urgent and severe cases) the pure tincture itself, ought to be given every hour until the rigors abate; or this medicine may be given in alternation with Belladonna; but valuable as these drugs undoubtedly are in most inflammatory diseases, they will still occasionally disappoint us. I therefore hail with pleasure the advent of so powerful and valuable an antiphlogistic as Veratrum viride, especially as it has been proved to exercise a most decidedly beneficial control over all pelvic inflammations, &c. According to Dr. Hale of America, this drug is homœopathic to a great many forms of uterine disease, such as amenorrhœa, sudden suppression of the menses, and particularly to *suppression of the lochia and milk* accompanied by fever, nausea, vomiting, and headache. It will therefore readily occur to the minds of most homœopathic physicians that it is strikingly indicated in the first stage of pelvic cellulitis, and although I have not yet put this to the proof, I should not hesitate to do so if opportunity offered, and with a pretty confident expectation of success.

I wish to impress upon my professional brethren the great importance of attending to the state of the bowels in this disease, for a collection of hardened fæces can never fail to aggravate the affection where it exists, and even in some cases of great neglect I can believe that it would even occasion an attack. The rectum in particular must be kept constantly empty; to effect this there is no better means than the daily use of copious warm gruel or warm water lavements. Nux and opium may be tried in order to overcome the accompanying constipation, but they will not, in some cases at least, suffice to produce a sufficiently soluble motion; and Podophyllin, or even a small dose of castor oil, should be had recourse to. The vagina should also be carefully syringed out with warm flax-seed tea at least twice in the twenty-four hours, and the hypogastrium should be covered with a hot bran or linseed meal poultice, which ought to be renewed from time to time.

If, notwithstanding the use of all these means, pus should form (which will be known by the rigors partially subsiding, and followed by a deep-seated painful *throbbing* in one or other iliac region, by the pulse becoming small, and by symptoms of collapse setting in), we must then have recourse to Mercurius, and also to Arsenicum, Pulsatilla, China, &c.; and the patient must be well supported with strong beef tea, animal jellies, and particularly with *brandy*. If there be any one diseased condition more than another which calls for the free exhibition of the hydro-carbons, it is that in which the pyogenic process exists in all intensity, and having given rise to blood poisoning, is threatening life at its very fountain. That form of sustenance, therefore, which can be most readily assimilated, and that can pass into the circulation simply by endosmosis without undergoing the tardy and exhaustive process of digestion, is the one most clearly indicated in such a case as this; but to be of use, the brandy must be given *freely*, though in regulating the quantity much of course must depend upon the age, constitution, and temperament of the patient; but it should be borne in mind that there is far more danger of giving too little than too much.

Before concluding this subject, we have yet to consider the expediency of making an artificial outlet for the pus in those cases in which we can detect fluctuation, but where the walls of the abscess are too thick to allow nature to relieve herself. In making an opening into the abscess, we must be guided by many circumstances which will readily occur to the mind of any intelligent practitioner; in particular he must take great care not to injure adjacent organs or arteries, and in no case even to dream of performing the operation unless fluctuation can be distinctly felt, and the pus be near the surface. Such precautions being observed, I feel sure then an artificial opening may, in certain cases, be had recourse to with manifold advantage to the patient; indeed I can conceive of instances in which it might even save life.

REVIEWS.

1. *Homœopathy, as Practised in Manchester Contrasted with its Alleged Principles.* By William Roberts, B.A., M.D., &c. Manchester: 1862. David Kelly.
2. *Homœopathy. A Review of Dr. Roberts' Attack on the Homœopathic Practitioners of Manchester.* By Thomas Rayner, M.D., &c. Manchester: 1862.
3. *Homœopathy as Practised in Manchester in Harmony with its Alleged Principles. A Reply to Dr. Roberts' Pamphlet.* By John Drummond, M.R.C.S.L., &c. H. Turner, Manchester and London.

We have here another of those periodical attacks upon homœopathy with which we are favoured by our intimate enemies, the allopaths, every now and then, to revive their declining hopes that the detested heresy is "going down" at last. In language and style it is certainly an improvement upon "Homœopathy Unmasked," and it contains none of the ridiculous nonsense about the heretical theological tendencies of our system, which Dr. Simpson talked. It is, however, not the less imbued with *malus animus*, and we must add, *mala fides*, and cannot be credited with the high motives and aim to which the author lays claim. Any evil it might do to the cause of truth is likely to be averted by the speedy appearance of the above two excellent replies, which expose the misrepresentations completely; and it is certain that the ultimate effect of this controversy will be to gain us new adherents, as has hitherto been the case, without exception in all previous controversies. The first thing we have to notice in Dr. Roberts's book is, that it is an appeal to the non-medical public. On this Dr. Rayner remarks:—

"We may, at this point, notice an objection our author urges against the literature of homœopathy, which is its adaptation to the general or un-scientific reader. 'Homœopathy,' he says, 'claims to be a science, yet its advocates, dissatisfied with its reception by scientific men, have turned to the public for support. Now this is a suspicious proceeding in a department of knowledge which, if a science at all, is simply a branch of pure natural science and natural history.' He then goes on to show that 'medicine is, for inherent reasons, one of the most intricate of the natural sciences, requiring a knowledge of physiology, of which the basis is organic chemistry and microscopic anatomy.' And, 'that to appreciate and pronounce on facts relating to the cure of diseases, requires an extensive personal experience of the natural history and course of diseases, and a practical knowledge of morbid anatomy.' He then reiterates his former statement, that 'it is a suspicious proceeding on the part of homœopathists to appeal to the general public on questions which, manifestly, can only be decided in the Court of Science. But it has been the course of medical empirics in all ages, and the fashion is not dead in our days.' (p. 53.) Clearly not; or Dr. Roberts would not have relinquished 'for months, congenial pursuits,' for the sake of appealing to the public to decide on this vexed scientific question. How insidiously the malaria has stolen upon him, and benumbed his sense of propriety, so that he has not only appealed to the public, but in order to bring down his appeal to the meanest capacity, has copied, translated, and published (in *fac simile*), the prescriptions of other medical men—a course of conduct, in all time, held to be most unprofessional."

Dr. Roberts's own account of the main object of his book is as follows:—

"Before proceeding to my task, however, I have an observation to make. Although *similia similibus curantur* is the fundamental doctrine of homœopathy, and is, indeed, embalmed in its very name, it is not, for all that, its most prominent feature to the perception of mortals. The law of *similia*, as the reader will find demonstrated in the second chapter, is little more than a sublime abstraction, inca-

pable of any but the most imperfect and limited translation into practice. The doctrine of infinitesimal doses, on the contrary, is one of mathematical plainness; and it is capable of easy and unerring application to practice. It might have been foretold from the beginning that, in consequence of this inherent difference, the abstract principle would abide in cloudland; while the tangible rule would give body, complexion, and outward dress to the new faith, and, before long, attract to itself the exclusive devotion of its votaries. And so it happened. The tiny phial of tincture, with its drop dose; the fairy, tasteless globule, the sugar of milk powder, the cup of pure water—these were palpable enough to the patient and to his wondering friends; but whether the treatment was in unison or not with the law of *similia*, how could they tell? This law could never be to them more than a form of words altogether, and, of necessity, beyond their appreciation. Whatever came in the little phial, or in the shape of a globule, or as insipid sugar of milk powder, THAT was homœopathy to them. It will now be understood why infinitesimal doses take the precedence in these pages." (p. ix.)

We certainly do understand it very well. But we are amazed that he should confess it with such a cynical frankness. He knows perfectly well that the dose is merely incidental to homœopathy, but that it has attracted the almost exclusive attention of a public incapable of fully comprehending the question as a whole. With the object of proving a number of his medical brethren to be cheats and impostors, he addresses himself to that public on the only point palpable to them, with the hope, if he can show something inconsistent in that, with their preconceived (though erroneous), notions, he may easily throw dust in their eyes as to the more theoretical and recondite parts of the question. The plan is simple. 1st. He asserts the infinitesimal dose is essential to homœopathy. 2nd. He decrees that the third dilution, or the millionth of a grain, is the strongest dose that can be called infinitesimal (all above that being, we presume, allopathic). 3rd. Therefore, when any larger dose is given, the practitioner has no belief in homœopathy; and when the medicine is one also in ordinary use, it is, he roundly asserts, allopathic in action as well as in dose, while the latter is disguised so as to take in the homœopathic public—that homœopathy is, in fact, the "mock practice of a mock science." Dr. Roberts tells us he feels it a public duty to expose all this, and is anxious that the charitable subscribers to the Homœopathic Dispensary should be aware that their money is spent on old-fashioned drugs in old-fashioned doses. Why does he not say at once he is anxious that the other class of patients should be aware that the new puffing shop over the way sells nothing but the old wares under new names, and the said patients had better come back to the old shop? The way he sets about his task is this: he gathers all the homœopathic prescriptions he can get, and prints some in *fac simile*, with an explanation of their meaning. By this means he proves or discovers, as he imagines (what nobody dreamt was hidden), that we often give much larger doses than the millionth of a grain! Of course the gist of his case is, that this should be inconsistent with the principles of homœopathy. On this point we quote Dr. Rayner:—

> "A quotation from Hahnemann heads the chapter on the dose, to the effect that a medicine, though it may be homœopathically suited to the cure of disease, does harm in every dose that is too large—the more harm the larger the dose; and by the magnitude of the dose, it does more harm the greater its homœopathicity. This is so self-evident a proposition, that even the author of the pamphlet cannot demur to it, especially when he remembers his cases of tetanus. But the question comes—what dose is too large? In many cases, the dose is too large if it produce aggravation or develop its own physiological effects in the patient; and yet there are cases in which even this may be done to some slight extent, not only without harm, but with benefit: probably syphilis is such a case. As a rule, however, we hold that dose to be small enough which produces in the patient no other effect than the relief of the ailment under which he labours; or, in other words, which acts as an alterative is said to do. If, then, an infinitesimal dose answers this end, it is not too small; if a massive dose does this, and no more, it is not too large. This allows plenty of range, surely, and is, we believe, the view taken of the dose by many practitioners of homœopathy, as well in Manchester as elsewhere."

This we accept as a clear and correct view of the matter; and if so, what becomes of Dr. Roberts's whole charge of inconsistency? The foundation being gone, the whole edifice tumbles in pieces.

But we will meet him on even a lower ground. No doubt, though not essential, the small dose is a great incidental advantage of homœopathy; in that, as a rule, the drugs have neither smell nor taste, and are of small bulk and small cost. Let us go into detail, and we shall be able to claim that still for homœopathy, even with those instances given by Dr. Roberts, though no doubt they do not give the fairest average of homœopathic prescriptions.

Out of the classified list of doses at page 22, seven were stated to be in pure tinctures. From this the reader is supposed to infer that the dose was allopathic, or something like it. But when we turn to the *fac simile* of one of these prescriptions, at page 10, we find that a powder moistened with the said tincture (the quantity not stated, but Dr. Roberts says the custom is to use 6 drops; a chemist, in Liverpool, says his custom is to put 2 drops when the quantity is not stated), say 6 drops, is to be dissolved in 12 spoonfuls of water, and one given for a dose. The dose in this case is, in reality, only half a drop. The medicines so mentioned in that prescription are tincture of Cantharides and tincture of Bark. The dose of those two medicines, in allopathic practice, according to Neligan, is 10 to 40 drops, and 60 to 180 drops respectively; and yet the ignorant, non-medical persons whom he is addressing are informed by Dr. Roberts that the above are allopathic prescriptions! By analyzing the remaining prescriptions, which are all in more minute doses, with the exception of one class, we find that in 14 the dose is from $^1/_{10}$ to $^1/_{30}$ or $^1/_{60}$ of a drop. In 19 it was from $^1/_{100}$ to $^1/_{1000}$, and in 14 from $^1/_{1000}$ to a billionth. The excepted class is those given really in the ordinary dose of allopaths. Of this class he states there were 13. We have no means of checking the truth of this, but we can state positively that does not form anything like an average per centage of such prescriptions used by homœopathic practitioners. Some of the instances given are of medicines common to both schools, and which are really homœopathic, though used empirically by the allopaths. Of course, of these, we may push the dose to any extent experience leads. Others, again, are openly and avowedly used by us for allopathic or antipathic purposes, and of course require the ordinary dose. On this point, we quote, as a complete explanation, from Drummond, page 17:—

> "Although Hahnemann contended for the universality of the law of similars, we do not wish to do this, because we believe it to be a *general*, and not a *universal* therapeutical law. As an example of my meaning, we will take a case in which the patient is suffering from undigested and fermenting food. Here we have the palpable cause of the suffering—viz., the undigested food, as well as the functional or structural changes, which are probably the vital causes of the food remaining undigested. Now the medical man may use his discretion whether the proper and best mode for him to proceed is to empty the stomach of its contents and thus remove the cause of complaint, or whether he should treat the purely vital disorder which has impaired the vigour of the digestive system. If he adopts the first course, he will rid the patient of pain for a time, and he will do so quickly, but probably this relief will only continue until he partakes of his next meal. He therefore follows up his palliative treatment by other means of a specific nature. Now, if the homœopath treated the case after this common-sense fashion, he might be said to have administered an emetic for the cure of indigestion, although in reality he only gave it to get rid of some offending and undigested food, and really cured his patient afterwards by the use of such remedies as nux vomica, pulsatilla, etc. Or again, in a case of constipation, we have to deal with the lessened vigour of the intestines, which is the cause of their acting inefficiently, and with the accumulation within them, which might proceed to obstruction if allowed to go on unchecked. A homœopath may therefore use castor oil, croton oil, compound colocynth pill, or any other purgative, in the first instance, as a means to remove the obstruction; but for the cure of the causes of the obstruction—the vital deficiency which has led to impaired action—he will use appropriate specific remedies, as nux vomica, alum, opium, or lead."

Before leaving the subject of the dose, as the question raised by Dr. Roberts really possess an interest, we have taken steps to ascertain what is the actual average of doses used at least in the north of England. The dose is entirely a matter to be determined by experience, and since homœopathists have refused to be bound by any dogmatic teaching on this point by Hahnemann or any one else, the question may be looked on as in a state of transition. On enquiry in Liverpool, which was most convenient, we have been kindly furnished by the principal homœopathic chemist with a list of the doses ordered in the hundred prescriptions preceding the day on which the information was sought. The result is as follows:—Of doses of one drop and upwards of the pure tincture there were ten examples. Of these one drop was usual, and the highest quantity three drops, viz. of Chelidonium, which is a weak medicine like Taraxacum. Of doses under a drop or grain, and above 1/10th, there were also ten examples. Between and 1/10th and 1/20th there were nine examples. Between 1/120th and 1/100th there were fifteen examples. Between the 1/100th and the billionth there were fifty-six examples, viz.:—

Of the 100th	9 examples.
—— 1000th	3 ———
—— 10,000th	11 ———
—— millionth	15 ———
—— 100 millionth	5 ———
—— billionth	13 ———
	56

On enquiry at the Liverpool Homœopathic Dispensary we find a somewhat similar scale, but the majority of prescriptions were between the 1/10th and the millionth.

With respect to the cost of drugs for the Liverpool Homœopathic Dispensary, we find that, by the report for January 1862, there were dispensed during last year 34,069 prescriptions, at the total cost of drugs of 34*l.*, exclusive of cod liver oil, giving an average of about ¼d. for each prescription.

These data we think triumphantly vindicate for the actual practice of homœopathy as close a correspondence between the ideal of homœopathy and its working out in reality as we can ever expect in the working out of any theory. While we have never attempted to conceal that in certain exceptional instances allopathic prescriptions are avowedly used, and while in other cases from the strong taste or smell or colour of certain otherwise weak medicine perceptible doses must be given, yet we maintain that on the average our system possesses in practice the merits of the tastelessness, small bulk and cheapness of drugs we have always claimed for it. On the whole, therefore, we may conclude that the Manchester doctor has discovered a mare's nest, and we wish him and his jubilant colleagues joy of it. No doubt his friends of the Medical Ethical Society (who turned out Dr. Roberton because he acted as no man of common humanity or gentlemanly feeling could have done otherwise than act) will vote their thanks to him and sympathize with his indignation against the "mock practitioners of a mock science.' But they cannot but feel that we are quite aware that all this is mere affectation put on to conceal their anger and vexation at finding we are not the noodles they would fain have the public believe we are, and are not sectarians hide-bound by narrow dogmas, but able and willing to practise medicine as masters of all the resources of our art. In short, the sting of the whole thing lies in this, that we are the PHYSICIANS and they are only ALLOPATHS.

MISCELLANEOUS.

A Few Words about Shoes.

SINCE the day when the classical shoemaker, elated by his successful criticism on the statuary's representation of a sandal, ventured on further fault-finding and was snubbed back to his business, with the recommendation to stick to his last, his representatives in all succeeding ages have amply revenged the insult offered to their predecessor, by playing all sorts of fantastic tricks with the last to which they were relegated. The torture they have inflicted on humanity, in their cruel efforts to twist and distort the human foot, from the shape nature fashioned it to their own fanciful and unnatural ideal, is something appalling to contemplate. In defiance of nature and of their original snubber, the statuary, they have incessantly endeavoured to alter the shape of the foot into a pointed monstrosity, ill adapted for walking, but ingeniously contrived for the development of various painful maladies, which would be totally unknown were natural principles, and not shoemaker's fashions, to regulate the shape of the shoe. Bunions, corns, deformed nails, perhaps even gout itself, are some of the common torments shoemakers have inflicted on our unhappy race; while flat feet, caries of the bones, lameness, are often the result of the baleful art. And mankind have suffered in silence, scarcely daring to murmur at their torturers. We have been content, with every pair of new boots, to walk about in agony for days or weeks, until our foot could work the leather from the shoemaker's fancy shape into some approximation to the natural form; and then we have been chagrined to observe that our boot has been so worked "out of shape," *i. e.*, out of the shoemaker's shape into something resembling the natural shape. But, in the end, the shoemaker triumphed; for each successive pair of new boots, by repeating the process of distortion, irremediably altered, more and more, the original shape of the foot, until at length we discovered, to our mortification, that our foot was permanently disfigured, and would bear no comparison with the foot of the classical statue. For ages we have conceded to the shoemaker unlimited control over the shape of that last he was counselled to stick to; and the consequence has been that he has done with our feet just what he pleased; and now the well-shod foot no more resembles the foot nature intended us to have, than Caliban resembles the Apollo Belvidere.

But the despotism of the shoemaker is, we hope, coming to an end. In this nineteenth century, when nothing is acquiesced in because it is conventional—when the spirit of scepticism attacks all time-honoured traditions and unceremoniously explodes the most venerable fallacies—when everyone pokes his nose into everyone else's business—and reforms in one profession are usually the work of members of another—in this century, we repeat, it could hardly be expected that the shoemaker's traditional notions as to the proper form of the human foot would remain unquestioned. Accordingly, we have before us two treatises on the proper shape of the shoe, published within the last two years, one by Dr. H. Meyer, Professor of Anatomy, Zurich,* the other by a practical—but, we presume, heretical—shoemaker, Mr. Dowie, of Charing Cross.* The work of Professor Meyer is chiefly upon the proper form to be given to the sole of the shoe or boot. He points out that, in the natural shape of the foot, a straight line drawn through the centre of the great toe, if prolonged to the heel, would pass through its centre; and he asserts, quite correctly, that the sole of the shoe, in order to fit the normal foot, should be so constructed as to allow the great toe to have its normal position in the shoe. In the sole of the shoe, as usually constructed, a straight line drawn through the position occupied by the centre of the great toe, falls to the inside of the heel, and the shoe constructed on a sole of this shape will have a tendency to push the great toe towards the centre of the foot, which, as is well known, it actually does. But if the great toe be pushed towards the centre of the foot, its metatarsal joint will be injured, the ligaments strained, the joint itself partially dislocated. The consequence is an unsightly projection which is exposed to pressure, bruises, and other injuries, whereby bunions are the usual result; and in the case of a gouty subject, as the gout usually fastens on a part that has been injured, the common seat of the gouty attack is in this poor, partially dislocated and systematically injured, great toe. In soles of shoes constructed on the principles laid down by Professor Meyer, when the shoes are placed side by side, with the heels in contact, the inner margins of the front part will be found to lie close together, just as the normal feet, when placed close together, will be found to be in contact all along their inner borders, from the heels to the end of the great toes. Shoes constructed on this principle will preserve the natural shape of the foot, and give the pedestrian the full power of his toes in walking, which he cannot have in shoes constructed in the ordinary fashion, where the great toe is forcibly thrust into the middle of the foot, probably overlapping some of the other toes, which, in their turn, are squeezed out of all shape and proportion by the similar inclination given to the outside of the sole.

---

* *Why the Shoe Pinches*; *a Contribution to Applied Anatomy.* By Hermann Meyer, M.D., &c.; translated by J. S. Craig, L.R.C.P.E. Edinburgh, 1860.

For feet already distorted and mis-shapen by the sinister skill of the shoemaker, Professor Meyer insists on constructing his ideally perfect shoe. That is to say, the sole is to be cut exactly as if the great toe were in its proper position. By this means, he asserts, the toe will be brought to resume its normal position, and the deformed foot will be regenerated. Whether this assertion is borne out by facts or no, we are not in a position to decide; but certainly Professor Meyer's plan reminds us of the philosophic tailors of Laputa, who measured their customers on strictly mathematical principles, with quadrants, sextants, dumpy levellers, and the like scientific instruments; and, if we remember right, the clothes never fitted properly. Dr. Meyer evidently dislikes the plan adopted by some shoemakers, of taking an outline of the foot. "Most shoemakers," he says, "use such drawings in order to find out how they will be able, most con~~veniently~~, to squeeze the foot into the smallest possible compass." "For healthy feet," he adds, "a drawing is superfluous; it is sufficient to have the length and breadth, and a knowledge of the structure of the healthy foot."

---

* *The Foot and its Covering.* By James Dowie. London, 1861.

Mr. Dowie's little book contains a translation of Professor Camper's treatise "On the Best Form of Shoe." If the principles inculcated by Camper had been acted on by shoemakers in general since his day, the world would have been spared a great deal of torture. He pointed out the mischief of the ordinary construction of the sole, its effect in distorting the great toe and causing corns and bunions; and though he did not lay down an exact rule for the construction of the sole, as Professor Meyer has done, he insisted strongly on giving it sufficient breadth, and one of the figures he gives represents pretty accurately the shape of a sole adapted to a normal foot.

Mr. Dowie, in his part of the work, recognises the principle of making the sole of the shoe correspond to the shape of the foot, but he does not go to the same length in this respect as Professor Meyer. He exposes the ill effects of the ordinary wedge-shaped toe of boots and shoes, to which he attributes the deformity of the great toe and its dislocation into the middle of the foot. The remedy for this he proposes is to make plenty of room in the shoe for the toes, by increasing the upper-leather at the toe of the shoe. But Mr. Dowie's great claim to be considered a reformer, consists in his introduction of a piece of "elasticated leather" into the middle of the sole of the boot or shoe. By this simple and ingenious contrivance, he gives to a thick-soled boot or shoe all the flexibility of a slipper, and the foot, in walking, retains all its natural springiness. None but those who have tried them can form a notion of the comfort and pleasure it is to walk in thick-soled boots constructed on Mr. Dowie's principle, after having been accustomed to wear the ordinary stiff-soled shoes. Another innovation of Mr. Dowie's is in the heel of his shoe, which is very wide, and scarcely thicker than the rest of the sole.

We feel assured that at length the true principles of constructing the covering of the foot have been discovered. With the sole shaped according to the principle laid down by Professor Meyer, with a waist of elasticated leather, as in Mr. Dowie's patent, with a broad, low heel, and a soft, wide, but well-fitting upper-leather, the pedestrian will be able to walk with all the native springiness of his foot, bunions and corns will be impossible, and lame feet, from chafing or pressure, will be unknown.

Scientific principles in the construction of boots and shoes must ultimately obtain universally. Already we see in many shoe shops a notice to the effect that boots and shoes are made on the "natural method," with a reference to Meyer's book.

When this is the case, we poor creatures, who have so long been tortured by our shoemakers, shall have the satisfaction to find that henceforth our shoes will be made to fit our feet, not our feet made to fit our shoes.

Exasperating a Disease.

The special correspondent of the *Times*, in his letter from the Disunited States, that appeared on the 17th of January, writes:—"General M'Clellan is slowly recovering from an attack of fever of a mild typhoid type, which has been treated homœopathically, and was, probably, much exasperated in consequence." The issue of the General's malady, as all the world knows, was perfect restoration to health and strength. Cavour, the Prince Consort, the King of Portugal and his brother, and several other great personages, whose names we cannot at present recal, were lately attacked by typhoid fever, said to be of a mild type, and they did not recover. But then their diseases were not exasperated by the treatment—at least, no special correspondent hinted at such an occurrence. Decidedly, then, the best mode of treating typhoid fever is to exasperate it by homœopathic treatment. Apparently, the disease, when so exasperated, leaves the patient in a huff. It is not used to be so treated, and won't stand it; so it abandons the patient to his fate, and he recovers. Reader, should you or your friends be attacked by typhoid fever, hasten to adopt the exasperating mode of treatment, *i. e.*, the homœopathic, if you wish to recover with M'Clellan, and not die with Cavour and the others.

The Letter of the Law.

Our contemporary, the *Monthly Homœopathic Review*, whose classic erudition we have often admired and envied, comes down upon us rather severely in its February number, on account of the motto that surrounds the woodcut of Hahnemann's head, on our cover. Following the fashion set many years since by writers on homœopathy, we had the homœopathic formula inscribed, "similia similibus curantur." This seems to give great offence to our classical contemporary, compelling him to allude to us in the following vigorous style: "The very law of homœopathy has been subjected to vicious and false interpretations by substituting one letter, one vowel, for another, *a* for *e*. Hahnemann was a good, though, in the critical sense, not a profound scholar. The old *hero* knew very well the value of the words he employed. He was incapable of the ridiculous *solecism*, of the ignorance, which is perpetuated on the title-page of the *British Journal of Homœopathy*. His expression for this law of drug-healing was, and is, *similia similibus curentur*, not *curantur*. His best beloved English friend, and his reverent pupil, the late Rev. T. R. Everest, told us how much Hahnemann was annoyed at the employment of the word *curantur*. In the medical sense the Latin verb *curo* means to take charge of, to treat, to *doctor*. Hahnemann was too much of a philosopher to arrogate the *cure*, he proposed the *treatment*. '*Let likes be treated by likes;*' that is the formula or expression he adopted for the law of drug-healing. In that formula he expresses one of Nature's laws of healing—that is, a law of God; the expression foisted on him is an impertinence. Let this formula be adopted—

SIMILIA SIMILIBUS CURENTUR.

The editors of the *British Journal of Homœopathy* should turn the *a* into an *e*."

Overlooking the strength of this language, which we ascribe to the zeal of the scholar on the occasion of a fancied outrage on his classical sensibilities, we will argue the point with him, without displaying the slightest irritation.

"*Similia similibus curentur*," as Hahnemann and our contemporary have it, means, as we all know, and as our contemporary informs us, "*Let likes be treated by likes.*" "*Similia similibus curantur*," as many put it, and as we, in happy ignorance of the storm that was to burst over us twenty years later, inscribed on our cover when we published our first number, means, as we all likewise know, "*Likes are treated by likes.*" The former our classical contemporary regards as "a thing of beauty and a joy for ever;" the latter as a "ridiculous solecism," an "ignorance," an "impertinence," and we know not what else besides. Now, to our own confusion, we confess that, possibly owing to defective classical learning, we cannot see very much difference between the two formulas. Supposing some renowned professor were to say to his listening pupils, "pneumonia is treated by bleeding," his audience would thereby understand him to express a rule for the treatment quite as well as if he said, "let pneumonia be treated by bleeding." It would come to precisely the same thing whether he said "*pneumonia venesectione curatur*," or "*pneumonia venesectione curetur*."

But we are not alone in our supposed offence against the proprieties. We have sinned in company with a very numerous array of physicians, both here and abroad. Writers who can justly pretend to much more classical purity than ourselves, have sanctioned, by their example, the odious fault for which our contemporary is so severe upon us. The *Monthly Homœopathic Review* will surely allow the classical lore of our friend, Dr. Chapman, and yet he, who should know as well as any one in these islands what is correct, in his *Plea of a Convert*, published in our second volume, unhesitatingly employs the word *curantur*. With such an eminent example before us, we need not be careful to defend our own reading of the formula.

Our contemporary inveighs against *curantur* apparently because the formula, if so written, might be translated by those who did not know Latin very well, *likes are cured by likes*. We are not anxious to contend against the assertion of our classical friend, that *curo* may occasionally mean to *cure* or to *heal*, though the best Latin dictionaries say so; but we boldly assert that the formula would not have been a bit worse if it had actually run thus—*similia similibus sanantur*, *likes are cured by likes*. And we do not hesitate to say, our contemporary to the contrary notwithstanding, that it would thus have better expressed what Hahnemann meant to convey. "Hahnemann," says the *Monthly Review*, "was too much of a philosopher to arrogate the *cure*, he proposed the treatment." Now, it so happens, that in the only place, we believe, where Hahnemann gives the formula in full —viz., in the introduction to the *Organon*, he calls it "the only natural law of *cure*" (*Heilgesetz*), and so far was he from being chary about "arrogating the cure," that he invariably talks about his law of *cure*, his method as being the only *curative* one, and so forth, while to other methods he will not allow the possibility of curing, but he will only allow them to be *modes of treatment* (*Curmethoden*).

That others have understood Hahnemann to express a law of cure by his formula is evident from the English paraphrase so commonly adopted, "likes cure likes;" and one of the finest essays that ever was written by a homœopathist, Dr. Scott's *Prize Essay*, published in our sixth volume, hinges upon the idea of the formula being a law of cure. But we need not go further than this very article in our contemporary for corroborative testimony; he there says: "That is the formula he adopted for the law of drug-healing. In that formula he expresses one of Nature's laws of healing."

The Cure of Popliteal Aneurism by Flexion.

The treatment of aneurism has increased in simplicity *pari passu* with the progress of physiological and pathological science. In some isolated cases before John Hunter's day, the femoral artery was ligatured; but the cure was thus attempted rather by circumstances peculiar to individual cases, than from any fixed principles of action. Starvation, on Valsalva's plan, compresses applied directly to the tumour, and somewhat later, after the researches of Winslow and Haller had shown the possibility of the circulation being maintained by anastomosis, the aneurism was laid open and the vessel tied at each end. Towards the close of the seventeenth century, it was sought to effect a cure by compresses applied in various relations to the tumour, and the vessels connected with it. A varying amount of success attended these experiments, when the operation, known as the Hunterian, took the place of all other methods of treatment.

In 1787, after having demonstrated the pathology of the disease, having shown that the arterial coats were diseased to some distance from the tumour, the power of continuing the circulation below a ligature by means of anastomosis having also been fully established, John Hunter proposed, and carried into effect, the ligature of the femoral artery, at some distance on the cardiac side of the popliteal space. The principle on which this mode of treatment is founded is that which has formed the basis of almost all the surgical management in popliteal and other aneurisms since the time of its introduction till within a comparatively brief period. During the last few years, and almost entirely through the Dublin School of Surgery, compression has again been resorted to in popliteal aneurism, and with much more success than formerly, because applied on greatly more scientific principles. But even this comparatively simple and bloodless mode of procedure bids fair to be superseded in many cases by a plan of treatment lately suggested by Mr. Ernest Hart, one of the surgeons attached to the Great Northern Hospital. Two years and a half ago, Mr. Hart read a paper at the Royal Medical and Chirurgical Society, in which he proposed to retard the current of blood in the vessels of the limb by flexion of the leg upon the thigh, giving, at the same time, the details of two cases in which his method had proved successful. At a meeting of this society, on the 28th of last January, Mr. Hart again brought forward this subject, and reported seven more cases of cure by flexion. In three of these compression was at the same time applied to a limited extent. In one, under the care of Mr. Spence, of Edinburgh, the femoral had been tied on a previous occasion, but, after a few months, the aneurism again formed. Compression was then tried, but with no good results. In May 1859, flexion was resorted to, and the cure has been permanent. In another, compression had been unsuccessfully tried by Mr. Collins, of Dublin, while Mr. Hart's method, in the same hands, was followed by a complete cure.

The great importance which must ever be attached to a plan of treatment so simple and efficacious of a disease so serious, and in which previous modes of operation have been attended with so many casualties, induces us to give a few of the details mentioned by Mr. Hart in his paper read to the society.

Mr. Hart lays down as a principle, that "the object in healing aneurism is not to cut off the supply of blood, or altogether at once arrest the circulation in it, but to cause such a retardation in it as would lead to the gradual deposit of fibrinous laminæ in the interior, and so effect its gradual consolidation. The former method is uncertain and dangerous; the latter safe and permanent in its results." To attain this *partial* arrest of the circulation in the limb, a flannel bandage is rolled around the leg from the foot upwards, stopping below the tumour, so as not to compress it in any way. The leg is then bent on the thigh, and retained in its flexed position, by means of three pieces of bandage attached to the ancle and along the leg. Confinement to bed is unnecessary, the patient can move about the room with a crutch. After a few hours the limb will require to be released from its restrained position; but, after an interval of a night, it is again bound up and retained so for several days. Absolute necessity for the retention of the flexed position will probably be gone in a week, but, as a measure of precaution, it is desirable that it be kept up for some days longer. To relieve the stiffness and aching of the knee-joint, which results from its forced position, Mr. Hart uses a liniment of chloroform and oil. It is more than probable that arnica, in place of the chloroform, would be more efficacious. The flexion should be employed with care, and graduated.

During the discussion which followed the reading of this paper, Mr. Solly, Mr. W. Adams, Mr. Fergusson, and other distinguished surgeons, spoke in high terms of commendation of Mr. Hart's proposal.

A Good New Year.

On New Year's Day, or thereabouts, we were surprised, and rather amused, by the intrusion of an illustrious stranger. A copy of the *Medical Times and Gazette*, duly addressed, lay upon our heterodox breakfast table. We had seldom consulted such an oracle voluntarily, except—as one occasionally inspects an abnormal specimen of something human—in an idle and weary hour, in search of an attack, weak and wicked, on Homœopathy; for we are given to understand from time to time, by certain good-natured Allopathic brethren of ours, that "we had caught it again and no mistake—there was another *slasher* on Homœopathy in that week's *Medical Times and Gazette.*"

Strange, thought we, till turning to the leading article, entitled "1862," the riddle was solved instanter. "As this First Number," says the generous Editor, "of a new Volume, will be distributed to every member of the medical profession in the United Kingdom, so no Editor can address a circle of readers more weighty, from their social position and their education, and from the degree to which the welfare of the whole community hangs upon the due discharge of their functions."

Now this is not perhaps very elegant English; the style is not happy; there may even be some question as to whose functions it is whereof mention is made in the last part of the sentence; but the printed words thus set up to our eager gaze manage nevertheless to convey, that a great number of No. 601 of the Vol 1 for 1862, of the *Medical Times and Gazette*, have been given away dirt cheap (and we note that the paper is not a bad article apart from the type which covers it), and without respect of party. What less could we do, having gone so far—what less than wade through the leading article? To be sure we did not forget the while, that this is a terrible fellow, or was very lately—this Editor of the *Medical Times and Gazette;* a huge slayer of the heretics; the tomahawker, the latest tomahawker in chief of homœopathy in especial; the slashingest of slashers; and we therefore approached his leading article, born of a New Year whereon he had risen, doubtless like a giant refreshed, to out-Herod his own Heroding—we approached it with due suspiration. Here we shall find, thought we, bone, muscle, and nerve; for is not this the New Year's Day delivery, or deliverance, of the famous bruiser who has been knocking homœopathy out of time for the last year or two; are not we face to face with the Sayers of the "legitimate" ring? However general the theme, here at least we shall have choice English, pithy sentences, happy or heavy hits, graphic touches—in a word, "a slashing article." Down, then, *Wevis!*—our shaggy old Scotch terrier that will share our attention at meal times—down! we say, till we devour 'the Slasher.'

"Our purpose is to show, as in a mirror, the daily life and working of the whole profession in all its relations." Ha! what can he mean by that? Why the daily life and working, and why of the *whole* profession? and to show it in a mirror too, and in *all* its relations? What sort of mirror is alluded to here? Surely it must be a magic mirror, since it is the profession and all its relations (poor relations of course included) which it shall show up. Well, this is to be done *honourably*, look you:—"We uphold that high principle of honour by which the proceedings of professional men towards each other should be guided, and we support their privileges [whose?—the privileges of the proceedings of professional men, or the privileges of the professional men themselves?] from all attacks, whether in the shape of crude legislation, or of official jealousy."

Well promised, if not very well expressed! It does occur or recur to us, indeed, that the proceedings of certain persons towards some of their professional brethren have not been very —— but never mind. Heaven, or the slashing Editor of the *Medical Times and Gazette*, preserve us from "crude legislation!"—to which, if all accounts are correct, we were very near being subjected when the last Medical Reform Act was at length passed—and may all good angels avert from us the attentions of "official jealousy!" It *is* kind of the Slasher to reassure us on such points, and we certainly ought to feel grateful, if not prosperous, for the assurance that he is always in training to " support our privileges." True, the question obtrudes—what are our privileges? as to which he is not very explicit. All of us are not privileged, like the Slasher and his clique, to be Fellows of Royal Colleges of Physicians, Physicians Extraordinary to Courts or richly endowed public hospitals, or to exhibit ourselves as filling professorial chairs in the universities. And even when it comes to a consultation —— But perhaps it's good for us, and we ought to bear it quietly; and so we were mostly inclined to do, till we read this fraternal article, in which the Slasher really doth protest too much, and acteth the cruel doctorial part of offering tonics, as it were, to starving men.

He engages to "supply the earliest and fullest medical news and notices of such of the occurrences in the world at large [the big-bellied world] as have any bearing [however childish] on medicine."

The English language being more or less flexible, this might have been differently worded thus:—'General topics that can anyhow be spliced on to medical palavers always on hand, and duly supplied when short of the genuine article. N.B. Homœopathy dissected once a quarter.'

The next paragraph of our famous leader commences with this little bit of modesty, of which we make a respectful present to the *Lancet*.—As an earnest of the future we may refer to the past. The volumes of 1861 contained a far greater quantity of matter (apart from advertisements) than any Journal which can aspire to be a rival." It's no great matter perhaps—but this is not luminous, though it is self-satisfied writing; and surely there is some mistake about the parenthesis, which should have run thus—"Matter (splenic, malignant, and unlaudable)."

But what have we here?—what next! "In style and power, the editorial articles would stand their ground with those of any literary Journal in the English language." Would they so, sirs, would they so? Dear, dear! it's sad to think we and others were so blind to the rich literary treats and treasures that passed our doors every week —"sixpence unstamped, sevenpence stamped," and to be "conveniently ordered of any bookseller or newsman, unstamped at 26s. per annum."

Style and power—stand ground—*literary* Journal—English language. It takes one's breath away. What have we not missed during the past year of grace that was graced by so much editorial "power and style!" Let us be thankful meanwhile for the specimen before us, wherein a greater than Dickens or Thackeray, Bulwer or Macaulay, goes on to say; proving his thesis, as it were, ye observe:—"In whatever branch of practical medicine the greatest progress is making, he [the reader] was rapidly put in possession of the improvements gained. Whenever the profession was assailed by danger within or without, the best policy to be pursued was pointed out." Taking the "power and style" of this for granted—if it wern't for very shame we would own that we don't see it—at his succeeding paragraph, or round, the Slasher walks up to one of his antagonists—that big fellow styled *Quackery*—and just brains him on the spot:—

"Quackery (in the future) shall be systematically counteracted." It is the "style" on which he prides himself, the grace which is dear to him, which prevents the Slasher from expressing himself more artistically, and saying that Quackery shall be scientifically countered, which is doubtless what he means to convey to "the knowing ones."

But he is a candid as well as a determined fellow, and he hastens to acknowledge that "quackery may be of two sorts." We cordially agree to this semi-proposition. It *may* be of more sorts than two, we suspect, whenever the Editor of the *Medical Times and Gazette* pleases to withdraw the restrictions he puts on its development. At present, however, there are only two sorts, since he decrees it so. Let us see how nicely he defines them:—

"Sometimes the quack pretends to obtain results from means absurd in themselves—such as mesmeric passes, or homœopathic globules. More frequently he selects some agent which may have its value in its proper place, but the use of which is absurdly erected into an exclusive system, and patients with the most opposite maladies subjected to the indiscriminate use of it. Such are the exclusive apostles of the cold-water cure or the Turkish baths; such are the rubbers, bandagers, botanists, galvanists, and movement doctors. Such persons bring useful remedies into discredit, as the Harpies of old befouled what they did not devour. Besides these are some legitimate members of the profession who resort to unworthy modes of obtaining notoriety, by advertisements of books, testimonials, and other kinds of puffery."

Here ye observe, sirs, how interesting and refined the distinction is, not only between the two kinds of quackery, but also between quackery and that other improper "legitimate" thing which adopts "unworthy modes" of making itself notorious. Brown, you observe, who treats disease homœopathically—no matter what his acquirements and qualifications generally—is a quack of the first order; and Jones, who patronises hydropathy, is a quack of the second; and no mistake at all about it. Because why? They "pretend to obtain results from means absurd in themselves." The Slasher's logic is irresistible. The means being absurd, of course those who employ the said absurd means are quacks. This may be called 'the ready method' of dealing with your Brown and your Jones, and be hanged to them for a brace of hopeless and helpless heretics! But with "legitimate" Robinson, who merely resorts to unworthy modes of gulling the public, the case is quite different. The means he employs, d'ye see, are not necessarily "absurd in themselves;" at least it need not be taken for granted out of hand that they are so (and Robinson, being a knowing hand, finds them answer *his* purpose, be sure); and therefore Robinson is no quack. Naughty, Robinson clearly is; there is no denying that; but then Robinson is "legitimate," and blood being proverbially thicker than water, why Robinson is to be admonished and corrected as an erring child, not denounced as a quack.

"But feeling how imperfect is the protection which the best Legislature can afford against ignorance, prejudice, and fraud, we give our readers such help as only a Journal can give towards placing them in a position to receive more abundantly the homage which the best part of society pays to their general shrewdness and intelligence, their skill in their own profession, and their general integrity and benevolence."

Having rebuked and corrected his erring "legitimate" children, our Editor thus offers to place "our readers" in a first-rate position. They, doubtless, have been accustomed to receive in times past some share of some sort of "homage," whatever that may mean, since they are to receive it "more abundantly" in future, and "from the best part of society" too, through the agency of the *Medical Times and Gazette.* We wish them joy of it; we wish they may get it "genuine" through such an agency. If they have no "protection against ignorance, prejudice, and fraud" other than this vulgar

Slasher can afford them, and if their "intelligence" and "benevolence" are to be measured by his standard, we don't envy them the *kind* of homage they are most likely to receive from "the best part of society."

On the Origin of Organized Beings.

When the Caliph Omar burnt the books in the library of Alexandria, he is said to have assigned as his reason for this act, "If the books agree with the Koran they are superfluous, if they disagree they are pernicious." The sentiments of this worthy Saracen seem to prevail in a modified manner among some theologians of our own time. The literature of a whole nation cannot, it is true, now-a-days be used up in heating our Turkish baths, but many books are denounced and anathematized by certain influential men if they do not altogether agree with the Bible, or at least if they contain aught opposed to their own interpretation of it. This is especially the case with works bearing on natural history, and particularly on the formation of the earth and the production of organized beings, it being contended that the Mosaic record is a literal and exact account of those matters.

In all ages theologians have been the greatest opponents of scientific progress, and at one period they were able effectually to stop the advance of science, but now science has grown too powerful for them, and in its steady march onwards gives its theological opponents many an ugly fall. As science advances and carries all intelligent minds along with it, the theologians, not to be left behind, pick themselves up, and in order to curry favour with their rival and retain their position with the educated classes, confess their previous interpretation of scripture to have been wrong, and profess to find that far from contradicting, the Bible actually anticipates the modern discoveries of science. The motion of the earth, the pretensions of geologists, the enormous antiquity of the world, have been successively found by theologians to be opposed to and consonant with biblical teachings, and now the doctrine of the mutability of species is as vehemently opposed by them as any of these other views; but if its advocates should succeed in proving its rationality, we shall doubtless find their present theological opponents eager to declare its perfect consonance with the Mosaic cosmogony.

The history of all these controversies should teach us that all matters of science should be examined and discussed without any reference to their supposed theological bearings, for we may rest assured of this, that when the scientific matter is settled one way or another by the men of science, the theologians will not be long before they discover its perfect accord with the scriptural narrative. We confess to a strong repugnance to the style of controversy that seeks to annihilate an opponent by a reference to the Book of Genesis, and although we can tolerate it in a theologian pure and simple, we have no patience with the man of science who resorts to such a weapon. If the opinions belong to the domain of science, let them be argued within that domain; if they are untenable, let them be refuted on scientific grounds; if they are sound, it will be the theologian's business to reconcile the scriptural record with the revelations of science, but in no case has the scientific man any call to be biassed by the prevailing theological tenets, or the received interpretation of the Mosaic record.

The common belief of naturalists, with a few noteworthy exceptions, has hitherto been, that all species of plants and animals are immutable productions, and have been separately created. As a corollary to this belief, in order to account for the very different organized beings that geology has shown existed at different periods of the world's growth, naturalists have supposed that the earth has been visited at different periods by tremendous cataclysms, that have destroyed all existing living creatures and plants, and after each such cataclysm a new creation of organized beings has taken place, each successive creation being of a higher type of beings than the previous one. This view has been very eloquently supported by many writers, from Buckland down to Hugh Miller, and we have read a great deal of fine writing descriptive of the aforesaid tremendous cataclysms and successive creative fiats. There have, however, been geologists of high standing who have opposed the cataclysm theory, and have contended that the ordinary forces in constant action on the earth are sufficient to account for all the geological phenomena the surface of the earth displays. And there have likewise been naturalists of distinction who could not be persuaded of the beauty of these successive acts of creation, but who have vigorously maintained that the present inhabitants of the earth might be the direct descendants of previous and simpler organic forms.

It could hardly fail that these latter theorists should be vigorously opposed by the partisans of the Mosaic cosmogony, by whom they are accordingly accused of infidelity and all its attendant enormities. But they may console themselves—the theologians were just as bitter at first against the holders of the cataclysm and successive creation theory, with whom, however, they eventually joined; and at that stage they are at present, constituting themselves the defenders of views which a few years since they denounced as opposed to the Bible and to common sense. A little patience—and if the new theory shall recommend itself to the scientific world, we shall find the theologians its warmest partisans, protesting that it is the only view of cosmogony that agrees perfectly with the Mosaic record.

Those naturalists who dispense with cataclysms and successive creations hold that the present species of plants and animals are not persistent and immutable forms, but have been developed out of some antecedent different forms, and are capable of generating forms different to their own.

By general consent the distinguished French naturalist Lamarck was the first who entertained this view and defended it in a scientific manner. Since his time the views promulgated by him have been more or less heartily adopted by several naturalists of eminence; and facts corroborative of these views have been accumulated by intelligent observers, until at length the evidence has attained quite a respectable quantity.

The latest and most illustrious defender of the mutability of species is Mr. Charles Darwin, whose work *On the Origin of Species* has excited a vast amount of interest, made many converts to the development theory, and raised up a host of opponents.

It has never, we believe, occurred to the most determined partisan of the immutability of species to contend that species are absolutely invariable, that each individual of a species is in fact an exact reproduction of the other. On the contrary, it is a common subject of remark that no two individuals of the same species are exactly alike; and when the differences are more than usually striking, and are propagated by inheritance, the inheritors of this considerable difference constitute what is termed a variety. Now in every class of the animal and vegetable kingdom there exist a multitude of groups respecting which naturalists are not agreed whether they should be called varieties or distinct species. Accordingly, in successive works on natural history, what are at our time declared to be species, are at another held to be varieties only; and on the other hand, the varieties of yesterday are distinct species of to-day. This hesitation and uncertainty on the part of careful observers shows an acknowledged degree of variability within the species, and might give rise to the suspicion that species are not quite so immutable as has been represented. Community of descent and fertility of the various individuals among one another are generally implied in reference to varieties, whilst non-community of descent and sterility in the first or second degree are supposed to distinguish species. But it is often as difficult to prove community of descent in the one case as the reverse in the other case; and some varieties are sterile among one another, whereas some acknowledged species are undoubtedly fertile. Thus the blue and red pimpernel, and the cowslip and primrose, which most botanists regard as varieties, are said to be infertile when crossed; whereas many of the different species of pelargonium, fuchsia, and calceolaria, some of them differing widely from one another, are said to be quite fertile when crossed. Indeed certain species of lobelia and hippeastrum are actually far more easily fertilised by the pollen of different species than by their own pollen.*

Hence sterility can no more be taken as a test of diversity of descent than fertility of community, if these qualities are to be accepted as the distinguishing signs of species and variety. If we hold that the different species of a genus have all a common descent from some anterior type, we may easily account for the general sterility of the species when crossed, by supposing that usually the differences that distinguish the species from one another are very marked in the reproductive system.

Man, by carefully selecting the peculiarities which constantly present themselves in a species of plant or animal, can create varieties of the most striking appearance, varieties probably which differ more among one another than many undoubted different species. Witness the varieties he has created among horses, cattle, sheep, dogs, pigeons, &c. What differences do not the dray-horse, the thoroughbred racer, and the Shetland pony present. Look at the greyhound, the bulldog, and the poodle; who would imagine they were derived from the same stock? See the pouter and the fan-tail, and compare them with their common ancestor the rock-pigeon!

If man by intelligent selection can in a comparatively short period of time develope such amazing differences out of one original species, we may surely admit that during an almost infinite number of eons of years the various species of a genus may have been developed from one original form by a power that is continually going on, viz., what Darwin calls " natural selection." And if species from a common genus, why not genera from a family, families from a class, and so on, until we ultimately arrive at a common progenitor for all the tribes of organized beings? Darwin makes out a strong case in favour of the mutability of species, and he hesitates not to follow his theory to its logical conclusion, and to claim a strong antecedent probability for the descent of all organized beings from one common source.

---

* Darwin, op. cit., 272.

It is accident, circumstances, and the struggle for existence that cause, according to Darwin, the different varieties, species and genera of plants and animals we observe upon the face of the globe. By accident is meant monstrous growths and variations in various organs, which, if they give the plant or animal any advantage over its rivals, are propagated and become a permanent type of the future descendants. In like manner a change of circumstances will often produce a change in some of the parts of a plant or animal which may also become a permanent type, and thus cause a variety or a new species. The struggle for existence that is always going on among all organized beings will secure for that creature that has any peculiarity giving it an advantage over its neighbours, preservation, and cause the extinction of its congeners, destitute of this lucky peculiarity. That such a struggle for existence actually takes place, and is continually going on, is evident from calculations that have been made, showing that any single species of plants or animals, if allowed to propagate themselves unrestrictedly, would soon occupy every part of the earth's surface, some from their great rate of increase in an incredibly short space of time. Hence it is that the individuals of a species or variety that have a peculiarity in their organization that makes them more fitted to retain their place, will survive and propagate their peculiarity, while the less favoured individuals will succumb and become extinguished. We may illustrate this by an imaginary example. Suppose in an island there was a race of bees which could obtain an abundance of honey from a plentiful supply of flowers, with easily accessible nectaries. The bees, supposing they had no enemies, would multiply to an extent only limited by the supply of flowers. Again, suppose some plant, with a long narrow calyx, like the red clover, were to be conveyed to the island and gradually to supplant all the other plants. In that case only those individuals among the bees that had a longer proboscis than the average would be able to obtain the honey from the clover flowers. The bees with the shorter proboscis would become extinct; and long trunked bees would alone be propagated. This is what Darwin calls "natural selection." It is this natural selection acting through myriads of ages that has produced all the numerous varieties in animal and vegetable life we now behold.

It certainly would require a length of time almost inconceivable. But the revelations of geology have prepared us to admit almost any required length of time for effecting these changes and developments, so that on this point there is no difficulty. The chief difficulty is, undoubtedly, the acceptance of the occurrence of these developments.

Opponents point to the Egyptian monuments 3,000 years old, where we find accurate delineations of the animals that to this day inhabit Egypt. If no change, they say, has occured in these 3,000 years, it is highly improbable that such supposed changes have ever occurred. But the advocates of the theory contend that 3,000 years is but an infinitesimal portion of the time that has actually been taken up in effecting these changes.

If Darwin's theory be true, the number of intermediate varieties and transitional links must have been enormous, from the earliest organized germs to the existing species of plants and animals. Where have all these gone to? Does geology reveal any such finely-graduated organic chain? Assuredly it does not, and this would seem, at first sight, a serious objection to the theory. But Darwin answers this objection by showing the great imperfection of the geological record. It would take too much space to recapitulate his observations on this subject; in fact, in this paper we have necessarily confined ourselves to the barest statement of the Darwinian theory, and we must refer the reader for facts and arguments to Darwin's book, which cannot fail to afford delight to everyone interested in natural history.

The views of Darwin and others relative to the mutability of species have received a curious confirmation from the labours of one of our distinguished German colleagues, Dr. Rentsch, of Wismar, who has recently published a work embodying the results of his researches and discoveries relative to the gammarus ornatus and its parasites.* In this work the author traces the development of the parent animal, of its several parts, and of its parasites, in the most careful and laborious manner. He shows the production of the parasites with which it is infested from their primitive cells, their transformations, and how apparently one kind of animal becomes, under certain circumstances, a totally different animal or even a vegetable, how an apparently independent organized being is changed into a portion of the tissue of the animal with which it is connected. He imagines he has discovered the law of the production or formation of organized beings, but we shall let him speak for himself, and give an extract from his preface.

"Attention has often been directed to the relationship of similarity in which the forms of the visible world stand to one another, but, as far as I know, this relationship has never been traced back to a single and dominant law of nature. As a partizan of the homœopathic method of treatment, I felt it to be my duty to investigate the law of similarity—which has shown such brilliant results in the department of medicine—in other regions of organic life, and, indeed, throughout all nature, and I was at last convinced, by my microscopical investigations, that all forms and motions of matter are caused by *one* law; to wit, the law of spirals. But if all forms and motions obey the law of spirals, they must stand in a relationship of similarity to one another, and by the co-operation of all, only similar can proceed from similar; if form and motion can be comprehended in *one* idea, in *one* law, this law must be the only one, the dominant one. Hence the name (homoiogenesis) I have given to these contributions.

"In nature there is neither an absolute something nor an absolute nothing. We know neither the beginning nor the end of things; in our comprehension, there is only the idea of infinity, and that is also the idea of the spiral. Life, motion, form, ebbing and flowing in this direction (*spira*, *spiro*, *spiritus*, *respiratio*), constitutes the history of the infinite; to investigate its course is the pragmatic object of the physiologist; but, for scientific proof, it is requisite to seize hold of one link of this infinite chain, on which to hang our conclusions. The starting point of our investigation is, therefore, always an arbitrary one, violently detached from infinity.

---

* *Homoiogenesis. Beiträge zur Natur- und Heilkunde. Erstes Heft. Gammarus ornatus und seine Schmarotzer.* Von Dr. S. Rentsch. Wismar: Hinstorff, 1860.

"In the actual phenomenal world, there is no such thing as an opposite, only a relationship of greater or less similarity, or of polarity, whereby, not mutual annihilation, but something more or less similar, is produced. Again, there is no such thing as absolute identity; the similar implies the different. The latter stand in the relationship of similarity to one another, and proceeds from that relationship. When we speak in the abstract sense of something identical, in order, *e. g.*, to describe types of formation, which propagate and maintain themselves by parental generation, this parental propagation is actually only rendered capable by there being the relationship of greatest similarity between the male and female individual, or in the cellular construction of the organism whence both have a common origin, but the parents are always somewhat different from their posterity.

"Who, in the present state of physiological science, can maintain that this so-called identical reproduction has been the only one from all eternity? The history of extinct and existing creations shows that only one of two things was possible, either that the forms of life, newly appearing at every period of creation, were like a *deus ex machinâ*, placed all perfect on the earth, or else that they were gradually developed from types and germs of a different generation, and formed new and different individuals and genera. The latter process is not only conceivable, it is supported by analogy and by the knowledge we have obtained relative to the extinct races that have inhabited the earth; whereas, for the former view, the credulous mind finds no support except in the Mosaic cosmogony.

"Now, though the organic forces met with in the present state of the earth, as well as those that existed in former periods of creation, are generally maintained and increased by identical or parental generation, it by no means follows that their vital forms, which are repeated in certain distinct types, did not originally arise in a non-identical way, or from germs and parents of a different kind and origin.

"Because the investigations of modern physiologists have shown the parental generation and propagation in the case of most of the types of organic life, non-identical generation has been rejected, and physiologists too hastily asserted that no such thing has ever happened, only they omitted to fill up the gaps in the cosmogenesis.

"If we follow the development of tissues and cells within the organism that has originated by parental generation, and that propagates itself by sexual intercourse, it cannot be denied that the various cells, tissues, &c., which belong to the organism, are subjected among themselves to a constant change of matter, and are incessantly reproduced anew from the most diverse alimentary substances, which are taken up and assimilated in order to maintain the organism. Can this be likewise termed a parental generation, or is it not rather a non-identical, a parentless generation? The parental generation can only be maintained by means of this non-identical cell-production. Are we really so blinded by beholding the one form of parental generation and origin, as to overlook the higher, more universal, the all-preserving process of heterogeneous cell-production? Has the apparent spontaneous production of many infusoria been fully proved to be owing to identical generation?

"I do not believe it; on the contrary, I am convinced that the parentless generation of many infusoria occurs still; that although it occurs in a narrow sphere, it has always been a necessary link in the great chain of terrestrial life, and in former times, under other cosmical and telluric conditions, it played, as a creative power, a much more important part, but at present it lies almost dormant, because the end of maintaining and propagating life can be attained in one single mode, a mode dependent on the former. Perhaps at some future creative period of the earth, when something still higher is to be produced, this principle of spontaneous generation may yet reassert its value," &c.

Whatever we may think of Dr. Rentsch's notions respecting spontaneous or parentless generation, we cannot fail to admire the wonderful industry displayed by him in carrying out his microscopical investigations, and the masterly manner in which he has contrived to transfer to the lithographic stone the revelations of his lens.

He has followed, with the microscope, the development of every tissue and organ of the *gammarus ornatus*, and if the results he has arrived at are really the processes that take place in nature, then we shall have to dispossess ourselves entirely of our previous ideas of the fixity or stability of organized forms. Almost every page of the book records the transformation of one creature into another. Thus he has observed and depicted the transformation of the *gregarina gammari* into *enterobryus bulbosus* and into *distomum gammari*. He shows how *zoothamnium parasita* is produced from other animals, and he describes the transformation of some *monads*, *vibriones* and *bacteria*, into vegetable forms. In short, he records so many transformations and metamorphoses of various animals into one another, that we rise from a perusal of his book with very confused notions as to which is the real original animal, and which the transformed one. In those microscopical regions which Dr. Rentsch has devoted his time and attention to, we think it must be a wise child indeed that knows its own father—if, indeed, he happens to have any father at all, which, in many cases, seems doubtful—for besides that Dr. Rentsch's *protegés* are generated indifferently by sexual intercourse, budding, and splitting or dividing, some of them seem to be capable of forming themselves out of anything that happens to be handy.

Until Dr. Rentsch's statements are corroborated by the observations of others, we may be permitted to accept some of them provisionally and under protest. Some of the extraordinary transformations he records, we may be allowed to set down to possible imperfect observation, and others that seem to admit of no doubt, may probably be of the character we observe in the insect world, where a grub becomes a pupa, and ultimately an imago, all very different forms of one and the same animal.

However this may be, we must confess that Dr. Rentsch has opened up a very interesting field of inquiry, and though, from want of technical knowledge, we are not qualified to criticize his labours, we feel assured that he has carried them out with a talent, and zeal, and desire for the truth, that must command the admiration of all interested in the more recondite speculations respecting the origin of life.

The speculations of Darwin have met with comparatively little attention from German naturalists, so it is singular to find his views so strikingly borne out and upheld by an independent labourer in a remote part of Germany. If Dr. Rentsch's observations are correct respecting the common occurrence of transformation and metamorphosis among the simpler forms of organized beings, there will be less difficulty in accepting the theories of Darwin respecting the gradual transformations that he alleges to occur among the higher species of animals and vegetables.

Some of the facts adduced by Darwin in support of his views are very curious and almost inexplicable, except on the supposition of the common origin of the various species of a genus from a common ancestor. Thus, with regard to the genus *equus*, which includes so many different species, he states that the ass has frequently stripes on its shoulders and legs. The koulan of Pallas has sometimes a double shoulder stripe. The hemionus sometimes shows in its youth traces of stripes on its shoulders and legs. The quagga, though striped like a zebra on the body, is without bars on the legs, and yet Dr. Gray has figured one specimen with stripes in its hocks. With regard to the horse, the most various breeds and colours sometimes show the spinal stripe; tranverse bars are often seen on the legs of duns, and sometimes of chesnuts. In the Kattywar breed of horses, stripes are so usual, that one without stripes is not considered purely bred. The stripes are on the spine, legs, shoulders, and side of the face. They are plainest in the foal. In short, stripes are occasionally met with in all breeds of horses from Britain to Eastern China, and from Norway to the Malay Archipelago. In the mules produced by crossing the various species, there is a great tendency to the occurrence of these stripes, though both parents may have been quite destitute of them. What is the inference from these facts? Darwin says: "I venture confidently to look back thousands on thousands of generations, and I see an animal striped like a zebra, but perhaps otherwise very differently constructed, the common parent of our domestic horse, whether or not it be descended from one or more wild stocks, of the ass, the hemionus, quagga, and zebra." The probability of this inference will be more apparent when we are aware of this fact, that animals which have been bred into various distinct varieties that will go on almost interminably reproducing the pure variety or race when kept separate, will, if the races be crossed, show a tendency to reproduce in the offspring of the cross some of the characters of the common progenitor. Thus, if two distinct and differently coloured breeds of pigeons be crossed, their offspring often exhibits the slaty-blue colour and the black bars on the wings, characteristic of the original rock-pigeon, from which all the breeds of pigeons are supposed to be descended.

Again, the young of species very dissimilar, when mature, often resemble one another in some characteristics that seem to point to a common origin. Thus the thrush tribe, which differ so widely in maturity, all display, when young, spotted feathers, indicating a common descent from some spotted ancestor. The cat tribe are usually striped or spotted in lines, and these spots or stripes can be plainly discovered in the whelp of the uniformly coloured puma and lion.

But we think the strongest ground for the belief in the common origin of all animals is what we may term the unity of creation, the existence, namely, of a single type of construction for all animals.

Though this unity cannot be so well seen in the simpler form of animal life, we feel assured it exists even among them; but it is obvious enough among the higher orders of animals, which are evidently all constructed on a common principle, their diversities being caused by their several organs being relatively to one another more or less developed, or more or less rudimentary.

How about our noble selves? many will ask. It is certainly most flattering to our self-esteem to imagine a common progenitor placed perfect on the earth some 6,000 years since, but without supposing a series of miraculous transformations in his descendants, we cannot satisfactorily account for the presence on the earth of so many utterly different and distinct races of men. We need not doubt the common origin of all mankind, but we can hardly imagine that all the varieties have been produced from an ancestral pair within the period assigned, more especially as we find, from the pictorial monuments of Egypt, that are at least 3,000 years old, that the races were just as distinct then as they are at this day. The tendency of recent investigations, philological, ethnological and geological, is to fix the first appearance of man on the earth at a much more remote period than is assigned to him in the common chronology. In fact, there seems little doubt that man was a contemporary of many of the animals that are only known to us as extinct fossils. But, however that may be, it is impossible for us, in the present state of science, to do more than form a conjecture as to the duration of any of the so-called periods of geology, and our conjecture may be, after all, very wide of the mark. All that geology can teach us is that the age of the earth must be something enormous, and without exactly saying with Mr. Jenkinson that "the world is in its dotage," we may subscribe to his dictum that "the cosmogony or creation of the world has puzzled philosophers of all ages," and will probably puzzle a few more before the matter is finally settled.

Modern Spirit-Raising.

Glendower. I can call spirits from the vasty deep.
Hotspur. Why so can I; or so can any man:
But will they come when you do call for them?
Glendower. Why, I can teach you, cousin, to command the devil.
Hotspur. And I can teach thee, coz, to shame the devil.—
By telling truth; tell truth, and shame the devil.
(*King Henry IV.* Pt. 1.)

An enthusiastic friend—a determined believer in the wonders of modern necromancy, persuaded us lately to have a *séance* with the latest and most marvellous of mediums. We were not very anxious to test his powers, but our friend appealed to us as professed enquirers into truth to witness the new phenomena, which he asserted revealed a great and mysterious power in nature with which it was imperatively necessary every cultivator of science should become acquainted. So to avoid being accused of bigotry and prejudice, and to gratify a sort of languid curiosity, we made an appointment with Mr. Foster, the hero about whom the *Times* has lately written, half-believing, half-doubting the truth of his pretensions.

At the appointed hour we assembled in Mr. Foster's room in Bryanstone Street. Our party consisted of our enthusiastic friend, a lady, an old friend of ours, more inclined to doubt than to believe, and the present writer. In the room besides Mr. Foster there sat a gentleman, a friend of his, who did not appear to take any part in the proceedings.

The magician himself is a stout florid young man, with a more than French exuberance of grimace and gesticulation. During the *séance* he talked a great deal, and was perpetually saying he saw spirits here and there and everywhere, now behind some one's chair, and now at a distant corner of the room. Of course one could hardly help turning one's head in the directions indicated, and probably he took the best advantage of our eyes being removed from himself. On the table, a round not very steady one, at which we sat, lay a card, on which was printed the alphabet, the Arabic numerals, and the information that one rap meant "no," two raps "doubtful," and three raps "yes." On sitting down Mr. Foster's first remark was that he had just come in from a walk, and had gathered a great deal of electricity, which he said was eminently favourable for the appearance of the spirits, who he gave us to understand were intimately connected with electricity. He asked us if we had any names of dead people in sealed envelopes, and we mustered altogether about eight or nine. Observing that those of this writer were numbered, he volunteered the surprising intelligence that the spirits told him we had a corresponding list in our pocket, which he desired us to produce. We drew the list from our pocket to show that he was correct, but at the same time took good care he should not see the names on it, which indeed were only in initial. He next took up one of the envelopes belonging to the lady of our party, and after receiving an affirmative response from the spirit representing it, in reply to his enquiry if it were present, he set the spirit to spell out its name by means of the printed alphabet; the lady touching the letters successively, and the spirit indicating what it believed to be the letters composing its name by three taps under the table whenever the pencil pointed to these letters. After many failures, the lady always good-naturedly telling the blundering spirit when it was wrong, the letters A, L, E were at length fixed on, when Mr. Foster said: "I see the spirit standing behind the lady," and presently afterwards: "It will write its name on this piece of paper." He had been fiddling with some half sheets of paper and a pencil, one of which he now presented to this writer, folded up with the pencil lying in the fold, and desired us to hold it below the table. This we did, keeping fast hold of the pencil so that we are sure it never moved. After two or three seconds he asked us to produce the paper, whereon we found written the name "Alexander." Our belief is that Mr. Foster himself wrote this name on the paper and folded it up when we were looking for the ghost, at any rate we can certify that the pencil was never moved when we held it below the table. He made a shrewd guess that this Alexander was a near relative of the lady's, and presently produced another piece of paper with the surname (the same as the lady's) written backwards upon it, in the way that most persons can write with their left hand. This and another good guess about the place of the party's death—the not very unlikely locality of London—were almost the last of his apparent successes during the *séance.* We cannot think much of his guessing this writers's name out of a list of half-a-dozen names he asked us to write—as he might easily have heard our name—which is an uncommon one. The remainder of the *séance* was a wearisome repetition of blunders. The spirit representing a name in an envelope commencing with C, tried several letters in vain, and at last fixed decidedly on J. Mr. Foster enquired if one of our envelopes did not contain a name of which this was the initial letter, and on our replying "yes," and showing him which envelope, he took it up, asked if that spirit was present, received three raps in reply, and the spirit spelt out its name "JOHN;" which was wrong, the name being "Jane," which it got after a few more failures. At Mr. Foster's suggestion, we enquired if this spirit knew the name of its father, to which an affirmative answer was given. However, a spirit that was so undecided about its own name, could not be expected to know its father's name better, so it made three unsuccessful guesses—Thomas, William, and Patrick—whereas the real name was Peter. It was quite as ignorant of the place of its death, guessing Aberdeen, Elgin, Liverpool, and Leith before it got the right place—Edinburgh, which we think was the only remaining name on the list. We should mention that the spirits, finding themselves, we presume, so unsuccessful with the alphabet, much preferred to make their guesses from among half-a-dozen names written by their interrogator on a piece of paper. This method obviously gave a much better chance to a shrewd guesser than the alphabet plan.

We were favoured with a sight of spirit-writing on Mr. Foster's arm. After repeated unsuccessful attempts, a spirit at length spelt out on the alphabet the commencement of its name H, E, which the lady, who was the interrogator, said was correct. Thereupon Mr. Foster said: "Stop! he is going to write his name on my arm." He thereupon twisted about his arms, rolled his eyes hideously, and made sundry contortions of his body as though he were suffering dreadful agony. At length he became calm, laid his left arm on the table, pushed up the sleeve of his coat, and displayed to our admiring gaze the name "Henry" written in large sprawling letters of a red hue. As it happened, however, the spirit had again made a mistake, and Mr. Foster had undergone his agony in vain; for the real name of the lady's departed friend was "Herbert," and not "Henry." Mistakes will occasionally happen among the best regulated spirits, we suppose, but here the mistakes were the rule and the correct guesses the exception, and even these exceptions not very wonderful. The discomfited magician, whose vivacity and boisterousness at the commencement of the sitting were conspicuous, began to show signs of impatience, especially when his last astounding trick turned out such a miserable failure; and he endeavoured to get rid of his incredulous visitors by alleging that time was up, that we had come to the end of our stipulated hour, though we had scarcely been more than half-an-hour with him. We therefore walked away firmly convinced that this modern spirit-raiser was but a very second-rate conjurer, and our only satisfaction for our loss of time and money was that we had not for one moment been imposed on by his pretensions.

With regard to the production of the writing on the arm, about which so much has been said, that is a simple enough trick. If we take a blunt-pointed instrument, as a tooth-pick, a watch-key, the stone of a ring, &c., and write the name with a moderate degree of pressure on the skin of the arm, for two minutes or thereabouts nothing is visible, but at the end of that time the letters begin to appear of a bright pink colour, more or less raised according to the degree of pressure exercised. The letters continue visible for from five to thirty minutes, according to the force used, after which they gradually die away, and leave the arm clear for another spirit-writing. We have repeated this experiment half-a-dozen times, and in a coat with a moderately wide sleeve we can easily write the name on the arm without drawing up the sleeve. We may observe that, as far as we can ascertain, the names always appear on Mr. Foster's left arm—obviously the most convenient one for writing on; and in the writing we witnessed, which exactly resembled, in colour that we executed on our own arm, the initial letter H commenced with a very peculiar flourish precisely similar to what we noticed on some specimens of Mr. Foster's writing on paper.

Contagiousness of Phthisis Pulmonalis, by Dr. R. Rogerson, Manchester.

Continued from vol. xix., page 171.

Some few months ago I directed your attention to a series of cases illustrating the contagiousness of phthisis under certain circumstances; those cases were carefully selected and investigated as to family history and present occupation, avoiding as much as possible to detail any case where there was suspicion of a hereditarily contaminated system. Many pathologists are of opinion that the true tubercular morbific agent cannot be acquired from any other source, unless transmission from one generation to another, and presenting itself in different families, by intermarriage, &c.; there *can* be no doubt whatever, but that intermarriage, more especially among relatives, tends to reflect backwards not only the prevailing features and dispositions common to such, but also has a debilitating effect upon the whole vital powers, rendering them more effeminate, and less able to stand against the change of season and climate, as well as predisposing them to the same morbid affections, common to their (bodily similar) representatives of the past—the same eye has the same lusts—and the same heart becomes elevated or depressed by similar impressions—and the same body has the same predisposition for the same morbid affections. But independent of family similarity, there are many instances presented to us where we are enabled to assign some irregularity in diet, clothing, (injudicious change of clothing), or exposure to cold, sleeping in damp beds, hastening from the ball-room, or over-crowded evening party to the cold air; neglect of or repeated attacks of catarrhs, mechanical injuries of the thorax, or too sudden disappearance of certain exanthemata. Causes such as these operate most powerfully over even the most muscularly formed and healthy individual, although the invasion is so slow and insiduous—so temporary and seemingly unimportant as not to attract attention, until the constitution becomes undermined, or one of the vital organs becomes affected.

We must not look upon disease of whatever form with the eye of tradition, not like the masonic sign orally received and communicated from age to age, preserving all its primitive grandeur, and original power; but varying with each succeeding generation, changing type and character with accidental circumstances, and becoming acted upon by every influence which interferes with, or acts upon our social, political, or domestic circles; or that because in syphilis, however virulent in character or form, however unpleasant or disagreeable the exhalations, cannot produce in the healthy a similar disease without contact of surface to surface, or affected part to healthy. The question becomes quite different with regard to phthisis.

We have a reservoir for the deposition of the destructive material; we have the function of a most vital organ becoming impaired; we have cutaneous and intestinal sympathy, with excess of action, and as suppuration advances of the lung, or molecular disintegration of the morbid products, with a certain amount of surrounding vitality, together with direct communication through trachea with surrounding atmosphere, sleeping chamber contaminated, the amount of ventilation insufficient, and inhalation of such highly charged, heated air, must undoubtedly possess injurious effects over the health, constitution, and vital powers of any one confined for some length of time to such an apartment, aided by sleeping in the same room, and in the same bed.

Dr. Wyld mentions in his "Heart and Lung Disease," that he is not aware of nurses who are in attendance upon such patients in hospitals, &c., suffering more frequently than others from phthisis. How far from the bed of the sufferer, or what time is necessary for its development is a matter of impossibility to decide—at least until further researches have been made. We may look through a keyhole into a chamber where there lies a case of scarlet fever, and next day suffer from premonitory symptoms, be confined to bed, and in a fortnight be seen walking in perfect health on the streets. Months are necessary in many instances for the development of physical signs in the other; besides, nurses generally live well, are of advanced years, often unmarried, pay great attention to cleanliness, and are only occasionally to be found at the very bedside of the patient.

I will only give a few more examples, in as concise a manner as possible, omitting physical signs and unnecessary particulars, unless practically interesting or important, and conclude with experience of some of the remedies useful to the disease.

J. H., Stockport, æt. 37. Fair complexion; well formed muscular system; osseous system proportionate; excitable; frequent flushing with exercise; hair fine; prominent brow; large nose and mouth, with alae well developed; resembled father in body. Had been in general good health, until some months ago a brother came home from Ireland in the last stage of phthisis; and there being two sisters, on whom all depended for support, it was agreed that the two brothers should sleep together, in order that the healthy one should attend to the wants of the invalid, and at the same time prevent their wearied sisters from being disturbed. The brother, who had been in Ireland for upwards of three years, contracted the disease from sleeping in the same bed with the governor of a lodging-house, who died some months before his return to England, of consumption. How far this is true, we are unable to say; but so very few diseases resemble consumption, and those symptoms so much depended upon as indicating the disease in question are of such a nature, among the poor and improperly fed, that even the evidence of one in a better or higher sphere of life may be partly relied upon. The brother who contracted the disease in Ireland died, after a long and tedious illness. The other, having been obliged to go to bed some two weeks after, the cough became more severe; breathing more oppressed; emaciation more and more apparent; sputa more fœtid and profuse; nocturnal perspirations and general nervous and vascular prostration increased, until the vital powers surrendered.

There were certain external or physiognomic appearances favourable for the development of tubercular disease, especially the steady and fixed look of amazement or wonder; the coolness of expression which often masks the irritable, although more common in the lymphatic; the expanded nostrils, and general form of body; together with the pulmonary and cutaneous exhalations.

The next case is very interesting as well as exceptional. A gentleman of good circumstances and position in life, of a moderately temperate habit—was frequently, however, from his professional calling, obliged to partake of spirits—lived some few miles out of town, and by a walk every morning and evening enjoyed good health, and a voracious appetite. After due consideration of the many circumstances connected with his history, such as father and two sisters having died from phthisis, and niece at that time suffering from hydrocephalus, with glandular enlargement, &c., &c., as he himself was in the most perfect and sound health, to all appearance, being free from cough, and not at all disposed to catarrhs, even under trying and unfavourable circumstances, he determined upon marriage, having been engaged for some years. His intended was of healthy parentage, and herself of a robust constitution, cheerful nature, and kindly disposition. Three months after the wedding the wife began to become oppressed in breathing, after which succeeded a hard, dry cough, sometimes so intense, especially in a morning, that on several occasions blood was mixed with sputa. This state continued some five or six weeks, when the sputa became more frequent; at the same time the dyspnœa abated, from the expectoration being more readily expelled, and the necessary mechanical impetus to the pulmonary circulation being partially diminished. The violent efforts of coughing produce in many instances the congestion so frequent in phthisical cases, whether mechanically or by destroying the tone of the abundant vascular system ramifying throughout the pulmonary tissue, and so affording more easy access to deposition and development. She gradually, however, took to bed, from which she never rose; became weaker and weaker; throat became ulcerated; hæmoptysis frequent and profuse; dyspnœa increased; quietude succeeded restless nights; the voice became more and more tremulous, ultimately indistinct; and death closed the scene. Ever since her decease, he has been complaining of a slight cough, and pain in right lung and shoulder; his appetite requires more inviting, and his spirits are very much depressed; physical examination reveals nothing but a present healthy state of the lungs. The effects of the mental depression by the loss of his wife, the constant and hourly pondering over every suspicious symptom that may present itself, and his natural or hereditary predisposition, may in some few months prevent him from pursuing his usual occupation. How his wife became affected, I am at a loss to discover. Prior to her illness she had no cough; she had no children, and was regular at her monthly period until she became affected with hæmoptysis.

It is unnecessary, however, to remark further, or to give more examples so striking and confirmatory; but we will now take a rapid sketch of the disease, and mention some of the most important remedies. Where there is a predisposition to the disease, the patient experiences more or less a difficulty in respiration, after excitement or violent exercise, even before cough or pain attract attention; the cough at first seems to affect the head, and, from its being dry and hard, very much distresses the chest, producing great exhaustion. A hot hand during digestion, and a flushed face appearing after each meal—of a very temporary duration, however—are frequently found in this the first or incipient stage, and gradually becoming more and more persistent as the digestive powers fail; the oppression of the chest increases; throat and mouth become dry and hot, sometimes painful; slimy expectoration in morning; cough increases during the night, abates during day; appetite may still remain good; the voice may now become rough or hoarse, although more commonly so in the advanced stages; emaciation; pulse becomes accelerated, with slight fever at noon and evening; and during this febrile disturbance the second stage usually makes its appearance; skin becomes more dry and hot; pulse more accelerated; and now, in the morning, when he ought to rise from bed, he only begins to get sleepy, and desirous of rest; perspiration occurs; pains in chest, with vomiting in some cases after severe coughing; expectoration tough and semi-transparent, becoming gradually green or yellow; fever more permanent; flushings more regular and lasting (like the side of an apple exposed for some time to the sun's rays), more circumscribed than varying towards side; perspiration increases; expectoration assumes a greyish colour, with a fœtid smell, tasting pungent, and occasionally mixed with blood; bones of face show their form; eyes sink; teeth seem to become more prominent; urine scanty, with sediment; thirst during fever; debilitating diarrhœa sets in; vital powers become diminished; the pulse softer, and very much accelerated; voice low, soft or harsh; tongue becomes fissured; papillæ prominent; feet begin to swell; patient gradually sinks, in many cases with full consciousness.

Every town or country village has its own remedies for consumption; every practitioner, in fact, relies upon fixed agents, to meet certain stages and symptoms; but of all homœopathic remedies, I have found the following to be the most efficacious:—*Drosera*, *Nit. acid.*, *Calc. phosph.* and *Kali carb.* The two former most efficacious in the male; the two latter in the female.

Drosera in the incipient stage—pulmonary congestion, or development of crude tubercle—preferable to Bell., with a hard, dry, barking or ringing cough, with or withoutexpectoration.

Nit. acid. where there exists a predisposition or suspicion of the development of tubercle, as well as in the advanced stage, with purulent expectoration, diarrhœa, or nocturnal perspirations.

Calc. phos. in the excitable; cough hard and dry, or expectoration of a saltish or sweetish taste, and a yellow or purulent consistence, especially in stonemasons, sculptors, &c., &c.

Kali carb., females advanced in years, who have had large families; harsh cough, with yellow expectoration; in both incipient and advanced stages.

There are certain intermediary remedies, such as Acon., which must be given when the case demands it; cod-liver oil; the Turkish bath, prior to purulent expectoration, is of very great service; living plants in bed-room, and a generous diet, have been in my hands successful, where treatment or remedial agents were at all of any value.

A Rebuke to the Bigots.

Until a perfect science of life has been elaborated by physiologists, there can be nothing more than an enlightened empiricism in medicine. The physician is an enlightened empiric; and it is only thus that he is distinguished from the quack. Accordingly, as we glance back at the early periods in the history of medicine, we see this mark of distinction becoming fainter and fainter; and as we look at the various quarrels of the faculty with heterodox systems, such as homœopathy or hydropathy, we know that they are really disputes as to matters of *doctrine*, and should be conducted as such. The tone adopted by the faculty towards such systems is unworthy and unwarrantable. To designate these systems as quackeries is preposterous. They may be one-sided; they may be absurd; but is orthodox medicine in any condition to warrant unhesitating allegiance to its doctrines? The homœopath and the hydropath have their theories of the laws of healthy and diseased action, and of the effect of their remedial methods; these theories may be absurd; let it be granted that they are so; they have the same legitimacy as the theories of the faculty which may be also absurd, and which many believe to be so. Let all serious doctrines receive earnest discussion, and let the practice of flinging "atheist" and "quack" at any man who ventures to think differently from the "gowned doctors" be left to those who have bad temper and worse logic. If it is unjust to stigmatise the physician because he is ignorant and incompetent, the existing state of knowledge leaving him no other alternative—if we respect him and reward him because he does his best and acts according to the lights given him—not less unjust is it to stigmatise the homœopath or hydropath because he also is ignorant and incompetent. The real question in each case is, Has he any conviction guiding him? is his practice founded upon real study? or does he *know* that he is an imposter?—*Blackwood's Magazine*, Feb., 1862.

Therapeutics Advanced Accidentalty.

The following case, reported in the *Lancet* for January 18th, 1862, p. 68, illustrates one of the modes in which allopathic therapeutics are advanced, one of the indirect ways in which *real*, because *homœopathic*, remedies are discovered. It shows, further, the value which must ever be attached to the Hahnemannic canon, that for a homœopathic cure to be effected, the dose employed must be smaller than that ordinarily resorted to, to obtain so-called tonic or eliminative actions.

"Some months back we watched, with considerable interest, a case of acute renal anasarca, which became complicated with psoriasis and lichen, for which this solution of Arsenic was employed, and with extremely beneficial effects upon the quantity of albumen in the urine.

"The patient was a female, aged 19 years, who was admitted" (into St. Bartholomew's Hospital, under the care of Dr. Frederick Farr), "with acute renal anasarca, of two weeks' duration, possessing all the usual characteristics of that affection, with the urine not only highly albuminous, but very smoky. For this condition she was ordered suitable treatment. About a month after her admission, an eruption of psoriasis appeared, associated with lichen, on the arms and hands, for which she was ordered five minims (afterwards increased to seven) of Fowler's solution, in peppermint water, three times a day. This was found to be of service, not only in dispelling the cutaneous eruption, but also in diminishing the quantity of albumen to such an extent, that it had almost wholly disappeared from the urine. In two months the eruption had much diminished, and was quite cured by the tenth week; although the albumen had all but gone, it re-appeared, in very small quantity, whilst taking the Arsenic. Besides other treatment, she had alkaline baths and creosote ointment. She left the hospital at the end of the twenty-fifth week, being much stouter, and altogether looking a great deal better. The arsenic had evidently acted as a powerful tonic, and exercised a very decided influence on the albuminuria."

Though the foregoing case is very indifferently reported, it shows that arsenic evidently tended to relieve the renal congestion, which previous "suitable treatment" had failed to ameliorate. We gather incidentally, rather than from any direct information, that after the albumen "had almost wholly disappeared from the urine," the use of Fowler's solution was suspended; and that on a recurrence to it subsequently, the physiological action of the drug made itself felt, and albumen "re-appeared in very small quantity whilst taking the arsenic."

Of the homœopathicity of arsenic to albuminuria we have abundant evidence, as we have also of the similarity of the general symptoms of arsenical poisoning to those of Bright's disease. At p. 124 of the 14th volume of the *Edinburgh Monthly Journal of Medical Science*, is a very carefully reported case, in which recovery followed after a large dose—two drachms—of arsenious acid had been swallowed, in mistake for carbonate of magnesia. Dr. Douglas Maclagan here found the urine to be highly *albuminous* on several occasions. The full details of this case form a *proving* of arsenic well worthy of study.

Allopathic practitioners have now obtained a knowledge of three forms of disease to which arsenic is homœopathic—viz., to eczema, to cholera, and to Bright's disease. The clues to the use of arsenic in the two first were doubtless derived directly, though without acknowledgment, from Hahnemann's writings; the discovery in the present instance is probably due to one of those happy accidents to which allopaths have at all times been so much indebted for their best remedies. They have yet to learn that to derive unmitigated good from a homœopathically prescribed drug, it must be given in smaller quantities than it is their custom to order, otherwise temporary aggravations—such, for example, as that noticed in Dr. Farr's case—must inevitably occur.

We trust that others of our well-proved medicines will be "*discovered*" by our allopathic brethren; feeling confident, that as these therapeutic advances become multiplied, their true source cannot fail of being admitted, and the vast debt of gratitude under which the profession lies to Hahnemann being candidly acknowledged.

Contributions on the Physiological Operation of Atropin.

From Dr. MICHEN.

[As we do not possess, as far as we know, any notable provings of Atropin, excepting the short ones by Lusanna (*Allg. Hom. Z.*, Bd. 55), and by Eidherr (*Ibid.*, Bd. 60), the following physiological effects of Atropin, observed by Dr. Michen, a well-known allopathic enquirer, must be worth communicating, though, being derived from patients affected with chronic ailments, and taken in a summary, generalizing way, they do not present nearly the same interest and utility for homœopathic practice as the individualizing provings of our school, which report the most minute details.—ED. of *Allg. Hom. Zeitung*, from which this is taken, Vol. lxiv., Feb. 1862.]

Since 1853, says Michen, I have had occasion to employ Atropin, or its most important salts, in the treatment of forty-two persons of different age and sex. Almost all these individuals had been, for a longer or shorter time, affected with epilepsy, which was either simple or complicated with aberration of mind. The Atropin, which was almost always employed inwardly, I gave in doses from $^1/_2$ a milligramme ($^1/_{100}$ of a grain) to 1 centigramme ($^1/_5$ of a grain), in twenty-four hours. These last strong doses were only tried a few times, with certain individuals.

The following are the most important primary or physiological phenomena which I observed:—

All the subjects of experiment, without exception, complained, on the second or third day after taking the Atropin (even in the smallest doses, *e. g.*, $^1/_{50}$ to $^1/_{100}$ of a grain), of unpleasant dryness of the mouth, lips, tongue, palate, and throat.

This dryness, which was seldom accompanied by actual thirst, and instantly disappeared on moistening the mouth with a gulp of liquid, seemed to be brought on sometimes by simple diminution of the secretion in the mucous lining of the mouth, palate, and throat; sometimes by diminished action of the salivary glands. Soon after the above-named symptoms, there was manifested a more or less considerable enlargement of the pupil, with tendency to immobility of the iris, even when only 2 milligrammes ($^1/_{25}$ of a grain) had been given. This mydriasis was accompanied by no very remarkable injury to the sight, as the patients were not prevented from reading pretty small print.

As I gradually raised the dose to 4 to 5 milligrammes, twenty-three of the subjects of experiment complained of difficulty in swallowing either liquid or solid substances, but especially of the small quantity of saliva which they had in their mouth; frequently, they could only effect deglutition after making several strains with the muscles of the neck and throat. Yet the dysphagia did not proceed from a spasmodic contraction of these muscles, as in hysterical or epileptic attacks. They seemed rather to be the consequence of a partially paralysed condition; for none of the patients experienced the sensation of a ligature on the gullet, as hysterical and many epileptic persons complain at the beginning of their attack; and, on passing the hand over their throat, one did not perceive the projection and shooting which is observed when the muscles of this region are spasmodically contracted.

After the dose of 6 milligrammes, I found in nineteen cases a failure of voice, which, in one individual, amounted to complete aphonia.

At the same time, there appeared in thirteen a slowness and hesitation in the articulation of certain words. The hindrance to utterance seemed to lie not merely in the muscles of the lips—as is the case, for instance, in paralysis of the facial nerves—where the pronunciation of vowels demanding the co-operation of the lips, such as *o*, and of the labial consonants, such as *b* and *p*, is impeded. In our cases, the impediment seemed to lie quite as much in the muscles of the tongue, as I often observed a slight quivering of the tongue. Besides, I have, in this impeded utterance, found a great resemblance to that difficulty of pronouncing certain words which characterizes the so-called *progressive* paralysis of the insane. (*Paralysie progressive des aliénés*).

After the dose of 7 milligrammes, all the subjects of experiment complained of dimness of sight; and I found the pupils then regularly in a state of great dilatation. They saw all objects as if involved in a mist, and could no longer distinguish their contour properly; could barely read very large print, could not thread a needle, &c. Lastly, twelve persons presented diplopia or slight strabismus, and six complained of difficulty in moving the eyeball.

After a dose of 8 milligrammes, nine out of sixteen of the subjects complained that they could no longer so well command their organs of locomotion. They felt at intervals, in spite of strong efforts of the will, a staggering in walking, like that of a drunken man, only not in so marked a degree. They could no longer keep themselves so steady on their legs, nor make use so rapidly and easily of their hands to button their clothes. In a word, they exhibited in the movement of the upper and lower extremities a certain heaviness and helplessness, which was very like the heaviness and helplessness of movement which one observes in the first stages of the progressive paralysis of the insane. The resemblance between the symptoms which characterize this last disorder, and the hindrance to movement produced by Belladonna, is often so great that, in the commencement, it is very difficult to draw the line.

Eight out of twelve subjects of experiment, with whom I proceeded to a dose of 9 milligrammes, complained of difficulty in passing urine. Besides, the sensibility of the skin was remarkably diminished; when they were tickled with feathers on the alæ nasi and in the nostrils, or the commissure of the lips, they hardly seemed to feel it. If they were pricked suddenly, and without being made aware of it, on the skin of the neck, the trunk and the extremities with needles, the pain which they felt was much slighter than in the normal condition.

Lastly, in six cases of individuals who had been epileptic for a long time, with whom the dose of Atropin amounted to one-fifth of a grain, there appeared, besides the above-named symptoms, a moral and physical apathy; the intellect was beclouded in a way which had a resemblance to the stupor in typhus. These persons seemed to understand with great difficulty the questions put to them; they answered very carelessly and slowly. Notwithstanding, their ideas, though they were communicated but slowly, and with an effort, were still connected and not very obscure; only in a single case there was exhibited a noisy delirium, accompanied with hallucination. It is important to add this remark, that all these physiological effects, though some of them were of a somewhat alarming nature, never had dangerous results; and that moreover, soon after the administration of the Atropin had ceased—disappeared; and in fact, either spontaneously or else after taking tea or coffee; excepting the dilatation of the pupils and the dryness of the throat, which often continued still for six to ten days after we had discontinued the Atropin.

From these observations the following general conclusions present themselves:—

1. The Atropin and its salts act especially on the cerebro-spinal nervous system.
2. They depress successively, but not synchronously, the functions of the different parts of this system.
3. They affect the motor nervous system before the sensitive; and the organs which minister to the intellectual and moral faculties are those which are last attacked.
4. The effect of Atropin on the motor nervous system is exhibited in convulsions, which, like those in epileptic fits, almost always begin in the muscles of the neck and face. The paralysis, however, constantly begins in the iris, and passes on successively to the muscles which minister to deglutition, vocalization, pronunciation, and the movement of the eyeball.—*Gazette des Hôpitaux,* 1861, 141, etc.

Case of Poisoning by Aconite—Successful Use of Nux Vomica as an Antidote.

Dr. Hanson, of Hartford, Conn., reports the following:—

"On April 19th, 1861, I was called to see a coloured boy, five years of age, a son of Mr. Lewis, Pine-street, this city, who had taken, as I subsequently learned, a preparation of the tincture of Aconite and simple syrup, a mixture I had some time previously prescribed for a member of the family. He was seen with the bottle, 'tasting' it; how much had really been taken could not be definitely ascertained, but, from his condition, it was manifest he had swallowed a destructive dose. The first intimation that anything was wrong was given about an hour and a half before I saw him, when he complained of his throat, walked unsteadily, and articulated with difficulty. I found him comatose, the eyes half closed, expressionless, the pupils insensible to light, though not much dilated. The pulse was feeble and irregular, respiration requiring artificial aid to support it, and the muscles and ligaments so much relaxed, that he could neither stand up nor sit unless supported. His respiration finally degenerated to a gasp, occurring five or six times the minute, then he would convulsively straighten out in the lap of his attendant, throw his head and shoulders back, and his hands over his head, as if, mechanically, to get a longer and fuller inspiration, then relax into the same state as before.

" No time was lost in getting his feet into hot water, sinapisms on the soles of the feet, calves, and over the abdomen and chest. I failed in my attempts to get an emetic dose of mustard into the stomach, from its bulk and difficult deglutition. Ipecac. and Antimony being the least bulky of anything at hand, I forced down a double dose; soon after I irritated the fauces with a feather. Fifteen minutes passing, and no signs of vomiting having appeared, I repeated the dose, and irritated the throat as before. No retching occurred from this at the expiration of half an hour from the first dose, the respiration grew more difficult, and the pulse became imperceptible at the wrist. He was sinking, evidently, and the emetics were aiding the poison instead of the patient, as the muscular fibres of the stomach were rendered insensible to expulsive stimuli by the depressing influence of the poison, and the difficult respiration and deglutition were referable to the operation of the same cause upon the diaphragm and pharynx. The case now appeared desperate, unless these tissues could be excited, and Nux vomica was manifestly capable of producing this effect, as its full therapeutic action was the exact opposite of that now dominant from the poison. Impressed with this idea, I gave him three drops of the tincture of Nux vomica; I then placed my finger upon the wrist and awaited the result. My pleasure can be well imagined when, in a few minutes, I felt the heart's impulse returning with accelerated vigour as the tincture became more and more absorbed, and the respirations were correspondingly improved in steadiness and depth. At the end of twenty minutes I repeated the dose, soon after tickling the fauces with the feather. Retching was soon induced, and vigorous emesis followed. After this operation, young ebony opened his eyes, and after satisfying himself that matters were progressing circumspectly, he coolly lay back in the lap of his attendant, with a quiet and steady respiration and pulse. I remained half an hour longer, when I considered him safe, and left him, with directions to take three drops once in three hours during the night, allowing him to sleep during the intervals if the breathing continued regular. The next day I found him sitting in a chair, and apparently fully recovered, having rested well during the night, and taken light nourishment during the day. I left him two drop doses of the tincture for meal times during three days, to ensure perfect tone of the muscles.

As a corollary to this, I think it may be said that Nux vomica is a complete antidote to Aconite, and, conversely, that Aconite is equally an antidote to Nux vomica. No doubt the Nux vomica would have been equally as prompt in this case when I first saw it as when I gave it. Nor is it unworthy of thought that the antidotal powers of Nux vomica may extend with equal force to the whole family of acro-narcotic and narcotic poisons. There can be no doubt that Aconite, Belladonna, Digitalis, Conium, Hyoscyamus, Stramonium, as well as Opium, Tobacco, and Prussic acid, act directly upon the nerves and muscles of organic life through the brain, paralysing them more or less completely as their toxic powers are developed, and that the stimulus excited by Nux vomica upon the spinal cord, and reflexed through the sympathetic ganglia, could not be expected to do less than revive and maintain these suspended functions more or less perfectly, until the brain recovers from the effects of the poison.—*Boston Med. Jour.*, and *American Medical Monthly.*

Comparative Treatment of Diarrhœa.

From a letter of Mr. K. Macdonald, L.R.C.S. Edin., to the *Lancet*, on the treatment of the autumnal forms of diarrhœa and dysentery, by nitric acid and opium, we extract the following remarks:

"I conducted my experiments in such a manner as to test not only the real virtues that nitric acid and opium possess in the treatment of the above diseases, but also their relative value when compared with other remedies. Four suitable cases were selected to commence with. One was restricted to a farinaceous diet, with brandy; another had in addition chalk mixture and aromatic confection; to a third acetate of lead and opium were administered; and nitric acid and opium to the fourth. All terminated successfully; those who received the stronger remedies recovered soonest, but the nitric acid was not so efficacious as the acetate of lead. I next selected three cases, and administered sulphuric, nitric, and muriatic acids respectively, in combination with opium. The effect was manifest; the nitric acid proved more efficacious than the others. I have, moreover, given it a trial in several other instances, and with marked success, but it does not appear to possess the active properties of sugar of lead and tannin."

Effects of Snake Bites.

The Hon. W. Bland in a paper on the bites of the venomous serpents of Australia, in the *Australian Medical Journal*, relates that the principal symptoms are: great prostration of strength, and almost irresistable somnolency. Ptosis of the right upper eyelid occurred in one case from the bite of the gold-coloured or yellow snake; and in another case, from the bite of the same species of snake, a feeling of intense insupportable oppression in the left side of the chest, particularly in the cardiac region; this occurred about seven or eight hours from the time of the bite, nearly the whole of which time the patient had been under active treatment.

BOOKS RECEIVED.

Homoiogenesis. Beiträge zur Natur- und Heilkunde. Erstes Heft. Von Dr. S. Rentsch. Wismar, 1860.

The Old and New Systems of Medicine Contrasted. Part III. By J. W. Hayward. London, Turner, 1862.

Third Annual Report of the Leamington Homœopathic Dispensary.

Report of the Liverpool Homœopathic Dispensary, 1862.

Report of the Penzance Homœopathic Dispensary, 1861.

The Foot and its Covering, by James Dowie. London, 1862.

A Review of Dr. Roberts' Attack on the Homœopathic Practitioners of Manchester, by T. Rayner, M.D. Manchester, 1862.

Homœopathy, as Practised in Manchester, in Harmony with its Alleged Principles, by J. Drummond, M.R.C.S. London, 1862.

Guernsey's Homœopathic Practice, by Dr. Thomas. Third English Edition. London, Turner, 1862.

The Monthly Homœopathic Review.

El Criterio Medico.

L'Art Médical.

Bulletin de la Société Médicale Homœopathique de France.

Printed by W. Davy & Son, 8, Gilbert-street, Oxford-street, W.

THE

BRITISH JOURNAL

OF

HOMŒOPATHY.

ON THE PATHOGENESY OF ACONITE: WITH CLINICAL OBSERVATIONS.

By J. H. Nankivell, M.R.C.S., Penzance.

(Continued from page 70.)

Ears.—("Tearing in the ears, or tickling (as of a little worm in the right ear), aching pain behind the *left* ear."—*Oest. Zeitschrift.* "Sensation as if the mastoid process were swollen.")

It is remarkable, that of severe diseases connected with the ear I have only seen two instances, and that these were both on the *left* side. In the first, the patient, a young man, had been the subject of otorrhœa; after a time he complained of pain in the mastoid process, became feverish, and vomited whatever he took into the stomach. An unqualified surgeon was sent for, who treated the man for biliousness; he became worse, and I was requested to see him. The patient was quite conscious, and pointed to the seat of pain; although no fluctuation could be felt, the parts behind the ear had a suspicious look, as if there was pus under the periosteum of the mastoid process. A lancet was passed down to the diseased part, and a small quantity of pus escaped. The vomiting soon ceased, and after a few weeks the parts cicatrised.

The second case was of a man who had a fistulous canal leading down to diseased mastoid cells. He stated that a medical man was one day syringing his ears, and that the fluid was suddenly and violently forced into the ear, where it seemed to lodge, producing a strange feeling of numbness and tingling; and that from that time he dated his sufferings. I proposed to lay open the sinus and examine the diseased bone, with a view to its removal; but to this he would not consent. A few months afterwards he became comatose, and died, the disease having doubtless extended to the brain. This case teaches the necessity for caution in injecting the ear, otherwise, should the drum of the ear be perforated, the injection may find its way into the mastoid cells, through the canal situated in the posterior wall of the tympanum.

("Burning in the left ear (whilst eating). Tingling and **roaring in the ears.* The ears feel stopped up, with sensation as if the vibrations of the air were prevented from impinging upon the tympanum.")

The successful treatment of diseases of the auditory apparatus requires the most careful discrimination of the causes which have originated those affections, and even then we are often baffled in our attempts to give relief. Moreover, when we succeed in our efforts, it not unfrequently happens that there is a marked liability to a relapse. In the autumn of last year, a person was in a railway carriage, and, being next the window, the right ear was exposed to a draught of air. The next day there was a confused noise in the ear, and considerable deafness; the ear felt stopped, and there was a pulsative sensation in it. I gave drop doses of mother tincture of Aconite, and the symptoms quickly subsided.

Again, in January of the present year, a young girl, who for several years had been deaf on the left side, began to experience a number of unpleasant sensations in the right ear, which had up to this time been in a healthy state. There was constant beating and throbbing, but not much pain, the pulsations only giving rise to a sound as of the roaring of the sea. As it was evident that there was marked disturbance in the vascular system of the organ, I gave Aconite. The relief of the pulsations, and the improvement in the hearing consequent thereon, followed very quickly; but every few days there would be a return of the disorder. Being thus baffled, I thought it desirable to syringe the ear with a weak dilution of Calendula, and found that the fluid passed into the throat; the membrane of the tympanum was evidently destroyed by ulceration, to some extent. Finally, after giving a few remedies calculated to prevent the further extension of the disease, the treatment was discontinued. It is hardly necessary to state, in these plain comments, how important it is, in all cases of deafness, to ascertain in the first instance whether they are caused by the accumulation of wax. Two cases have come under my notice during the past year, of great deafness from this cause, and this only. In the one case, of a man aged 40, I removed with a small ear-scoop, masses of dark wax which completely occupied the meatus, and had prevented the air from acting on the drum. The function of the organ was completely restored. In the other case, which is still under treatment, the patient had been in the habit of wearing wool in his ears; this material had become entangled in the wax, and by degrees had insinuated itself deep into the meatus auditorius. I thus had to take away pellets of wax matted with wool. When I saw the patient the first time, he could not hear the ticking of a watch; on my second visit he heard his watch very plainly, and no doubt will be much benefited.

Again, a woman, aged 47, came to our dispensary in November last, complaining of deafness in the right ear. On examination, I found that the whole organ, externally and internally, was affected with what might be termed chronic erysipelas. The meatus was much contracted by the tumid state of the skin, and there was a constant desquamation going on, portions of the cuticle being easily peeled off, when laid hold of with a small pair of forceps. Having cleansed the ear-passage, and given Acon., Bell. and Ars. in succession, the disease was removed and the hearing restored.

About the same time I was requested to see a lady who had been getting deaf very gradually for some years. The case was very similar to the last mentioned, except that the disease had not been arrested, and consequently the meatus had been reduced to a mere chink. I endeavoured to overcome the contraction by a dilator, but with very little success.

In several instances of what may be called functional deafness, or more properly, of deafness in which it was impossible to ascertain the exact cause, and where the treatment was necessarily tentative and *quasi* empirical, I have utterly failed to afford any relief. One instance of cure by Aconite it may be well to record, although it was not a severe case. A gentleman complained of deafness of the *right* ear, which continued daily from the time he awoke of a morning until ten or eleven in the forenoon; it was like the sensation of stopped ears felt after bathing, and the patient attributed it to the fact of his always sleeping on the *right side.* Be this as it may, it was relieved by Aconite, and has not returned.

("The hearing is excessively sensitive; every noise is intolerable.")

It is scarcely necessary to remark that this exalted sensibility of the organ of hearing is analogous to, and often in relation with, the exalted state of the functions of the other senses, and that it is very generally indicative of the first stage of hyperæmia, or inflammation of the cerebral ganglions. The innumerable sounds which are simulated in the ear itself, when the organ alone is diseased, form a remarkable fact; almost every kind of sound has been heard in this morbid state; but it is only necessary to allude to them here. These perverted states of the auditory functions are by no means necessarily connected with mental disorders or delusions of any kind. On the other hand, the illusions of the senses of sight, smell, taste and touch *more commonly* have their origin in a disordered state of the nervous centres.

NOSE.—("Stupifying pressure over the root of the nose.")

That this is an Aconite symptom of some importance, I have had a gratifying proof during the present month (February). I was summoned to a patient, a girl of 12 years of age, and the messenger, who was a highly intelligent person, and deeply interested, not only in the welfare of the patient, but in the success of homœopathy, gave me the following recital of the symptoms:—The child had at first symptoms of common cold, with headache; she was feverish and shivering; pain in the back; could not sleep; had felt as if she should vomit; had talked when dozing; the tongue is white and foul; there is scarcely any appetite; bowels constipated; is very thirsty, and asks for water; has ground her teeth; *the head gravitates backwards and forwards, as if it were very heavy; there is much intolerance of light; there is a sensation as if the brain would protrude through the forehead, and the pain shoots to the root of the nose.* These symptoms were of so grave a nature that I gave Acon. and Bel. in alternation, the dose being one drop of the pure tincture. After a dose of each of these, then Acon. and Bel. in alternation, 3rd decimal dilution. In this manner the alarming condition of this patient was soon relieved, and after about a week she was convalescent. She derived great comfort from the application to the head of cloths wrung out of hot water.

There is another disease in which this kind of pain might be complained of, viz., in chronic disease of the frontal sinuses. The most severe case of this kind which I ever treated was accompanied with an acrid, fœtid discharge from the nostrils. The patient was a bootmaker, and being obliged in his trade to stoop the head forward, he suffered intensely. It is now many years since, and he was treated allopathically, but with indifferent success.

("* Bleeding from the nose, especially in plethoric persons.")

This kind of hæmorrhage may take place from a variety of causes, as from simple uncomplicated congestion of the mucous membrane of the organ, or from any cause giving rise to vascular excitement of the brain or its membranes, or when there is any obstacle to the free return of blood from the head. If it occurs in *plethoric* persons, it is most probably salutary, when to a moderate extent; and whereas many persons are liable to bleeding at the nose during a long life, it becomes a question how far we may, in some cases of threatened apoplexy, act according to the dictates of common sense as well as of medical science, by imitating the operations of nature, and relieving the overloaded vessels by the application of a few leeches. It would be a mere waste of time to endorse the doctrine contained in our text, that Aconite is most valuable in the *epistaxis of plethoric persons.* It is probable that, as a general rule, women bear the loss of blood better than men. An extensive experience in midwifery practice has convinced me that the female sex is wonderfully tolerant of the loss of blood; they quickly recover health and strength after very exhausting hæmorrhage. The Sangrado practice is nearly extinct in every school of medicine (*laus Deo*); but I frankly confess that I still have a leaning to the application of leeches, in a few exceptional cases of disease in "plethoric persons."

("The sense of smell is very sensitive; disagreeable odours affect him a good deal.")

Such symptoms are given, in most of our standard works on medicine, as indicative of approaching apoplexy; they may also be manifest at the commencement of other diseases of the brain. They belong to the same category as a very acute state of hearing, &c., &c., and distinctly point to Aconite as the most reliable remedy.

("Violent sneezing, with pain in the abdomen or in the region of the left ribs; coryza; headache; humming in the ears, and colic.")

The connection of the first group of symptoms is evident; violent sneezing is at times an apoplectic symptom, and when caused by catarrh, might give rise to serious disease in the brain, to persons in advanced age, or with a marked tendency to cerebral congestions; it is indeed wonderful that the violent and continued succussions in protracted sneezing should so seldom produce mischief in the brain. In an incipient case of real inflammatory or congestive disease of the nervous centres, the "pain in the abdomen or in the region of the left ribs" may be a consensuous symptom, a nerve-pain such as, under similar causes, might be felt in any part of the body: in a child affected with acute hydrocephalus, one of the first symptoms complained of was intense pain in the right thigh. In the second group of symptoms above quoted, the three first appear to be *en rapport* with each other and with our medicine; the last-mentioned—viz., colic—seems to be accidental, and would probably not often occur in practice, in the relation in which it here stands.

(*O. Z.* "Furuncle at the tip of the nose; the nose is entirely dry; a clear liquid is discharged from the nose.")

The first symptom cannot have occurred with sufficient frequency to entitle it to a place in our pathogenesy; the second and third symptoms are merely different stages of coryza, and when accompanied with fever, would doubtless be notably relieved by our drug.

FACE.—"Bluish face, with black lips. (During the febrile paroxysms) the face is bloated, red, hot; or else it is alternately red and pale. Redness of one cheek and simultaneous paleness of the other; or *else redness of both cheeks at the same time.* Upon raising the head, the face, which is usually red, turns pale as death."

If all our pathogenesy were so photographic as the passage just quoted, it would be in truth a more attractive study than it is at present. In reading it, one is carried in imagination back to many a bedside, where he has day after day watched and observed parallel states. The first symptom appears to point out severe disease of the pulmonary organs, the venous colour in the cheeks being intensified in the lips. In some forms of asthma, in which the dyspnœa was intense and the cyanosis severe and extreme, Aconite alternated with Belladonna has in my hands done good service. The other sentences give a graphic picture of the varying conditions of the countenance in fever. The alternation of redness and paleness marks perhaps the commencement of prostration of the vital powers; every excitement of the nervous system, from whatever cause, trifling or otherwise, will, under these conditions, give rise to a phenomenon allied to that of blushing. Usually, when one cheek is pale and the other red, it is when the patient lies on the side; the want of vital tone in the vessels occasioning the pallor in the one case and the congestion in the other. When both cheeks are red, the decubitus would probably be on the back, and the stage of fever not so advanced as to give rise to the contrasted appearances we have attempted to explain. The last symptom quoted—viz., the face turning as pale as death—marks great exhaustion or debility, and is closely allied to faintness. It would be a bold assertion that, in such a conjuncture as this, Aconite would not be borne well; but there can be no question that our drug is more useful in the early stages of fever than at any subsequent period.

This change of position, giving rise to syncope, recalls to my mind a case of consumption in a young lady of 15. I had visited her one morning, and found her weak and much exhausted, but not apparently near death; there was cough and *expectoration*, and consequently no accumulation of mucus in the lungs, so as to produce that slow suffocation and apnœa which we usually find when patients in this sad disease are moribund. I had left the house, and proceeded about a quarter of a mile, when a messenger came hastily after me, to say that I must return immediately. On reaching the house, I found that the patient was dead; and on charging the nurse with having lifted her up in bed, she acknowledged that she had done so, and that the patient had suddenly fallen back and expired. As I had cautioned the nurse on this subject, it was the more vexatious to find one's orders disregarded. In all cases of exhaustion the same caution should be given.

(" * Sweat upon the forehead, upon the upper lip, and upon the cheek upon which one is lying.")

This is a truthful description of the bead-like sweat that every physician has noticed, in many forms of disease accompanied with fever. I think that it is most frequently found in connection with obstruction in the pulmonary organs, and consequently with an increased action of the muscles of the alæ nasi, and indeed of the other assistant respiratory muscles. As a general rule, this excessive perspiratory action of the skin is a vicarious act for the relief of internal organs; the excessive sweat is one of nature's efforts, and is of a critical nature.

(" Contortion of the facial muscles.")

The gentle twitching of a few muscular fibres in the faces of healthy infants, when they are asleep, is called by nurses in this county " Vester fits." I do not know the origin of the expression, but have heard it frequently. I have at present a patient who is the subject of epilepsy; the fits always come on about four o'clock in the morning, but almost every day he gets " contortion of the facial muscles;" most commonly it is the right side of the mouth which is affected, and the sensation is accompanied with a slight degree of disturbance of the mental functions (*petit mal*): he calls these lesser attacks "squitches." He has been much benefited by Opium, Belladonna, and Cuprum; that is to say, the fits return less frequently than heretofore. I have not given him Aconite, but think it worthy of trial. In fevers with brain disease, this *contortion of the facial muscles* is a most grave and terrible symptom; and more especially so when the muscles of the eyes cause a jerking or catching motion of those organs. We all know and believe that one great reason why our atomic doses act so well in acute disease, is because the affected organs are in a state of exalted and exquisite sensibility, and are thus in a state highly susceptible of medicinal impressions; now, although this is the case in disease in general, it becomes a question whether, when the very *fons et origo* of sensibility is diseased, we ought not to consider how far its susceptibility to the action of remedies does not become very quickly BLUNTED;—briefly, whether in brain disease we ought not to administer more palpable doses than in other cases.

(" Tingling pain in the cheeks, and sensation as if they were swollen. Ulcerative pain in the region of the malar bones. Semilateral prosopalgia, with swelling of the lower jaw. Pain in the articulation of the jaw when chewing. Burning, tingling and lancinating jerks in the lower jaw. Penetrating pain in the lower jaw, as if it would drop.")

I have purposely omitted from this group the sentence " * The lips are black and dry," because it is evidently out of place; and I would here remark, that if ever our Materia Medica is re-edited, there would be infinite gain by bringing the symptoms more into relation one with another. The sentence I have extracted would be more at home, perhaps, after that of " Bluish face, with black lips," or, at all events, amongst the fever symptoms: it is not in connection with the rheumatic or neuralgic pictures. With respect to the other passages, they seem to point, for the most part, to rheumatic affections of the face. The last two sentences would seem to refer to neuralgia with a rheumatic complication, or, indeed, such sufferings might arise from a centric course; but the diagnosis would not be difficult.

(*O. Z.* "*Expression of terror and imbecility in the countenance.* Hippocratic countenance. Alteration of the features; twitchings of the facial muscles.")

Aconite is unquestionably a most valuable medicine in cases of fright. In this neighbourhood I have to treat many cases of extreme and alarming nervous depression produced by shock; and as, unhappily, the patients have a notion that bleeding is the best remedy for their sufferings, they often prescribe this depletion for themselves, and are indulged in this delusion before they come to me, to the great and serious injury of their constitutions. The inhabitants of the villages hereabout are exclusively occupied in the fisheries, and it frequently happens that information of the drowning or sudden and violent death of friends or relations is brought home and communicated, without any caution to lessen the severity of the shock. Familiarity with these sad events does not have the effect of rendering the people in the slightest degree callous; on the contrary, it would appear that their nervous systems have become, by hereditary descent, highly impressible, and that there is an extreme susceptibility and proneness to be deeply and permanently affected by bereavements. It is almost incredible how many of the patients applying at the Penzance Homœopathic Dispensary trace or attribute their sufferings and diseases to grief and fright. Although our standard writers on mental diseases have protested against depletory means, as tending to fix and confirm a tendency to melancholia or dementia, it is perfectly astounding that in these days men can be found who will bleed a patient in order to *cure a fright;* and yet such things are done to an extent that is truly lamentable.

(" Blisters upon the forehead, as from heat. The face feels cold to him, but warm to others. The left cheek feels to him as if swollen and hot, whereas it is cool to the touch. Hot face, with coldness of the hands and feet. *Glowing heat of the face.* Redness and heat of both cheeks, with sensation as if the face had grown larger.")

These sentences appear to form a natural group; the first is

LIKE the effects of erysipelas of the head. One cannot doubt for a moment how admirably Aconite would comport itself in such a case. Unfortunately for my clinical remarks, I am not able to give many results of homœopathic practice, in consequence of my having been so short a time acquainted with its wonder-workings; I therefore feel compelled to eke out my paper by referring to my experience of the treatment of disease when I was an allopath. Many observations which I insert are therefore not *apropos* to Aconite, except by implication.

I cannot refrain at this point from relating very briefly two cases of erysipelas of face and head, which a few years since came under my observation. The first was in a man of 40. He was extremely ill, the face so bloated and altered that he was but little like himself; he was delirious, and it was evident that the membranes of the brain were beginning to participate in the disease which had for days been raging external to the skull. He took Mercury in the form of calomel, and afterwards of grey powder, and the scalp and forehead *were every day scarified, very freely and very superficially*, after which the parts were fomented with hot water. The amount of blood lost altogether could not have been more than two ounces. The relief appeared to be very great, and I always thought the scarification was the principal *means* of his recovery. Probably mild local depletion is absolutely necessary in allopathic practice for diseases of an inflammatory nature.

Again, I was called in consultation to see a married woman, aged 35. She had erysipelas of the head and face, and was delirious. I was much shocked to find that blisters had been applied to the scalp and brow: it was a sad sight. She died the next day.

The two next sentences point out instances of perverted sensations. It is scarcely necessary to remark how frequently such sensations are noticed, especially at the onset of febrile attacks. The difference in temperature at the extremities is also common enough, when the balance and harmony of the circulation is lost in consequence of the want of healthy innervation.

(" Pressing and drawing about the chin; sticking and drawing in the left upper and lower jaw. The lower jaw is involuntarily pressed against the upper. Stiffness of the jaws. Lock-jaw.")

These sentences remind me of a case of rheumatic lock-jaw (if it might be so called), which I saw many years since. The lady who was the subject of it was very susceptible of cold, and had many attacks of this severe rheumatism of the face. The attack generally lasted a week, during which time "the lower jaw was involuntarily pressed against the upper," and that with much pain; there was complete inability to take any solid food, and the jaws were as rigidly closed as in a case of true tetanus —nothing but a little fluid could be got into the mouth.

It is worthy of observation how rarely we meet with cases of spontaneous, or what might more correctly be called rheumatic tetanus. I have seen one case allied to this tetanoid affection. The patient was a poor man, who had to work in a wet bog; he was a pale, sickly-looking fellow, and during the winter months had suffered much from cold and damp. At last he began to complain of pain in his limbs, and by-and-bye he was attacked with universal cramp, of the most intense kind I ever witnessed. His agonies were so great, that I was under the necessity of administering chloroform to him. This, and this only, appeared to give any prompt relief. I do not recollect much about the medical treatment, but it consisted of *aperients and diaphoretics.*

TEETH.—("Sensation as if the teeth *were loose,* with burning and tingling in the jaws and in the tongue; stinging in the teeth; pressure in the upper teeth.")

These symptoms point to an inflammatory origin, and are unquestionably to be removed by Aconite. A case recently came under my treatment, presenting characters very similar to the above, accompanied with throbbing. I gave Aconite in the pure tincture, 1 drop every 3 hours, applying at the same time an Aconite lotion to the cheek. The pain quickly subsided, leaving a sensation of *numbness,* which soon disappeared after the medicine had been discontinued.

("Toothache (especially when occasioned by a cold) in a raw wind, accompanied with a throbbing pain in the whole of one side of the face; intense redness of the cheek; *congestion of* *blood to the head;* burning heat in the face, and great restlessness.")

We have here presented hyperæmia of the vessels supplying the teeth, associated with erysipelatous inflammation of the cheek, and a good deal of feverish disturbance. Aconite would be the leading remedy in such a case; but the congestion of blood to the head might also demand Belladonna, in order to insure perfect relief.

(" Rheumatic toothache and faceache, especially in sensitive persons, subject to rushes of blood, the pain is excited or aggravated by wine, or similar stimulating drinks; or when it is brought on by excited feelings, particularly by chagrin.")

Rheumatic toothaches are generally marked by a tendency to come on, or, at all events, to be aggravated at night, and are usually from their origin associated with faceache. The increase of suffering after taking wine, or by any kind of mental agitation of a depressing character, should be borne in mind as an Aconite indication.

(" Congestive toothache (and faceache), especially in *young people* (particularly in lively, young girls), who lead a sedentary life, with abdominal venous congestion."—*O. Z.* " The teeth are sensitive to the air; the teeth are set on edge.")

It is almost unnecessary to remark how much young persons of highly nervous temperaments and exalted sensibilities are subject to congestive and neuralgic toothache; although it may be observed that the manifold symptoms of dyspepsia which accompany abdominal congestion, are perhaps more frequently associated with that *bête noir* of medicine, viz. Pleurodynia. Before I dismiss this subject, which is one that does not much fall under the notice of the surgeon, I cannot forbear making a few remarks on dentistry in general. Doubtless, in London and other large and important towns, the dentists are, as a rule, gentlemen well acquainted with their profession, and fully competent to be the conservators of the teeth of their patients. But I have had many proofs of the injurious effects of stopping teeth with the amalgam which is so convenient for the purpose. In what manner this amalgam acts on the teeth I know not; but certain it is, that after a time, the teeth become gradually pervaded by a dark stain, and the actual decay of the teeth is much accelerated. I give my judgment in this not unimportant subject with submission to the higher authorities, and it is as follows:—That if a tooth is in a fit state to be plugged or stopped, the greatest care should be taken to remove first all carious matter, and then pure gold only should be used; and secondly (judging from experience), that as soon as a carious spot appears on any part of a tooth, the most common-sense treatment is to remove it by filing. I remember an instance in which the posterior edge of an inferior molar was rapidly breaking down with disease; the part was attacked with files for about half an hour (the operation was intensely disagreeable, so is the idea or recollection at the present moment), fourteen years have passed by since then. The integrity of the tooth is remarkable, although the patient has arrived at the age of 53. Once more. The destruction of teeth by the administration of calomel and blue pill entails such fearful consequences on the digestive organs, that it ought to be put down by act of Parliament, or by some other efficient means. In the report of the Penzance Homœopathic Dispensary for the year 1861 will be found no less than six cases of mercurial poisoning, with utter destruction of the teeth!

MOUTH.—(" * Sensation of dryness, or *actual dryness* of the mouth and tongue; sometimes accompanied with heat ascending from the chest to the head.")

These states point out that a sensation of dryness may exist without, or may precede actual dryness. It would seem that in the first condition there is an interruption of the function, or at least an impaired state of the function of the nerves of the tongue; and in the second, a morbid change in the vessels and glands of the organ. The primary condition often precedes the secondary by a short space of time.

(" Tingling, smarting, *stinging and burning of the dorsum of the tongue.*")

Of course, such sensations as these are often felt in the course of many diseases, in which the whole system is implicated. I have never had to treat more than one case of what might be called pure glossitis. In this case Aconite acted charmingly, and the child soon recovered.

(" Paralysis of the tongue, which lasts only a short while. Trembling, stammering speech.")

A well marked case of this kind came under my observation during the last year. A gentleman, aged 50, had to make a long journey in very cold weather, and the business in which he was engaged was of a most disagreeable character, so that during the day he was subject to extreme annoyance and mortification, and this, with the effect of the inclement weather and a prolonged fast, produced such a depressing effect that the next day he found himself unable to speak distinctly. There was no headache, nor any confusion of mind, but a necessity to speak slowly and with extreme deliberation. He felt much alarmed from an impression that his state would be noticed by his friends. I at once gave him Aconite, 3rd dil., every two hours, and all the distressing symptoms quickly passed away. I well remember when attending the lectures of the late Dr. Marshall Hall, that he called our attention to the fact that, under the influence of emotion, many paralysed persons were able to utter words and sentences with great distinctness, and he said that he thought there was a part of the brain that was especially affected by the emotions. Be this as it may, I know an instance in which a gentleman, aged about 70, is able, under the stimulus of business, to express himself very pertinently, but immediately after business hours, when he retires to his own fireside, and attempts to keep up a conversation with his own family, his nervous system appears to suffer a kind of collapse, and he is ever and anon calling things by wrong names.

(" Soreness of the orifices of the salivary ducts, as if corroded ; ptyalism with stitches in the tongue.")

It has been remarked that a kind of ptyalism (not mercurial) exists, in which there is what may be called an idiopathic excitement of the salivary and mucous glands. The parotid, submaxilliary and sublingual glands may, from their nervous connections, be associated in these conditions. In waterbrash there is a sudden gush of fluids from these glands, accompanied with a peculiar sensation difficult to describe; it is a sort of qualm or pang, and arises in most cases from sympathy of those glands, with a disordered state of the stomach. I remember one instance of ptyalism that might well be called recurrent. A youth had bathed in the sea, and remained therein for about an hour, he took cold and had a severe attack of congestion of the kidneys, with much fever. He was, unhappily for him, treated by a gentleman who was a great believer in mercurials. He became deeply salivated, and made a slow recovery. Some months after this he had a return of the renal disease and discharged, as on the first occasion, a quantity of urine much loaded with blood; at the same time his breath had the characteristic mercurial fœtor, and there can be no doubt that the mineral was at this time in his system. It is scarcely necessary to add, that according to the best observations, Hepar or Mercurius are the most effectual remedies for this quasi poisoning of the system, and that Aconite would be the right remedy for inflammatory catarrh of the salivary glands, accompanied with the symptoms mentioned in the text.

O. Z.—("The lips are burning and feel swollen; burning extending from the lips down to the œsophagus. *Burning of the tongue; it feels swollen, with sensation as if a current of cold air were moving over it. Burning of the tip of the tongue;* the tongue feels like leather; vesicles on the tongue which burn a good deal.")

Case.—During the last year, an infant, aged 3 months, was brought to our dispensary, presenting most of the above symptoms. The condition of the child was truly pitiable. It was unable to suck from the swollen state of the tongue, and was thus threatened with actual starvation. The tongue was protruded from the mouth, studded with vesicles, and, as it appeared, thrilling with pain. The child cried and wailed piteously. Aconite relieved it very beautifully.

("Numbness in the inner part of the mouth; numbness of the tongue; coldness of the tongue; spasmodic sensation in the region of the root of the tongue; inability to speak.")

These expressions would appear to indicate partial paralysis, or interrupted function of the nerves supplying the tongue;

conditions of disease which might exist during the progress of fevers or brain disease. The last sentence, viz., "Inability to speak," recalls to my mind two cases of fever, in which this was a prominent feature; albeit Aconite had nothing to do with the recovery; but as a certain degree of interest attaches to them, I cannot refrain from recording them in these my clinical observations. An intelligent little girl, aged 7, was attacked with fever and congestion of brain. She went on from bad to worse, and her life was despaired of. As she had all the symptoms of effusion in the brain, I, as a last resort, gave her Hydriodate of Potash, but with faint hopes of benefit. To the surprise of everybody, the child rallied; but to the horror of her parents, there was every reason to fear that if she recovered she would be an idiot. She did not speak or seem to care about anything, or notice anything for nearly three months. At last a favourite doll was placed by her side; this she took up and amused herself with it. By-and-bye, she attempted to speak, and in doing this, her efforts were much the same as those of a child when first learning to talk. She made a perfect recovery after having been literally twice an *infant.*

Again, a little boy had fever, which nearly extinguished him. The only symptom of lesion of the brain which he had was paralysis of the tongue. Throughout his illness he had an intelligent expression of the countenance. He did not speak for six weeks. Carbonate of Ammonia, mutton chops, and wine rendered him good service. He made a satisfactory recovery; but for more than twelve months his utterances were slow and labouring.

CAPILLARY VESSELS.

HOW DO THE CAPILLARY VESSELS BEHAVE IN THE PROCESS OF CURE?

By Prof. Dr. J. HOPPE, Basle.*

I HAVE repeatedly asserted that, in our curative treatment, the capillary vascular system should be taken into account decidedly above all the other tissues, and that, for by far the most part, the physician effects cures of the vessels only—*i.e.*, he produces favourable changes and subdues disease, by acting on the vascular system, and in fact mainly by direct influence on the vessels of the part affected. If this be a true verdict, and surely it is beyond all doubt true and correct, then must the study of the vessels and of vascular action be one of the most weighty problems for the physician. For this reason I have already, in every shape and way, cited the agency of the vascular system in relation to the therapeutic process and the actual cure; and, in the following treatise, offer one more contribution to the same cause. I shall discuss the part which the capillary vessels play at the moment when the cure of an affection depending on abnormal vascular activity commences, and is completed; for, decidedly, we must endeavour to obtain as clear a knowledge as possible of this act. I must also premise some general remarks.

---

* From Hirschel's *Neue Zeitschrift*, band vii. p. 3.

The capillaries have the power of springing open; and then they swell and occasion a local hyperæmia, or superabundance of blood. Moreover, they have the power of contracting, and produce, by excessive contraction, deficiency of blood, or anæmia of the part affected. On the swelling of the vessels, there instantly occurs an abatement of muscular power in the region of the swelling; and on their contraction, a proportionate increase of muscular action. But if a vessel, or branch of a vessel, a little twig, a twigling not visible to the naked eye, or in short if, as frequently happens, a mere point in the course of a vessel, abates in its muscular action, and just in consequence of this abatement the vessel is so quickly widened, distended, and swollen by the rapidly flowing and crowding in, that it looks not so much as if it were merely forced open by the blood, but far more assumes the appearance of having entirely sprung open of itself, yet this vessel is, notwithstanding such abatement of muscular action, by no means "paralysed," as, unfortunately, it has hitherto been the fashion to assert in every case of a distended vessel.

For the said twig which has now, so to speak, sprung open, can the next moment fly to again; and I use this last expression, because it is derived from actual observation, and because these expressions clearly set forth the mode of action, or the behaviour of the capillaries. Also, the annular muscles of the vessels which have just now abated in activity, and become swollen from the excessive entrance of blood into their calibre can at once, or after a few seconds or minutes, contract upon the fuller and wider stream of blood, by means of their recovered activity, and they can develope even upon that wider stream the same degree of activity which they previously exerted in the tranquil state, and with their normal dimensions. It cannot therefore be said that a distended vessel is a paralysed one. And if a vessel actually can, with such rapidity and as if by a spring, alternate its state of distention and contraction, how is it in this case possible to call it's distension a paralysis? In blushing, the vessels swell from a momentary abatement of muscular action,whilst in pallor of shame they contract and drive out the contained blood; but blushing and pallor can notoriously alternate in the space of a few seconds; and how can any one call blushing a paralytic condition? In cases of hyperæmia too, there can be no talk whatever, at least in general, of "paralysis." On the contrary, it is true that in this cessation of muscular activity, during which the vessel becomes distended with blood or hyperæmic, there lies a mystery as yet utterly unrevealed—a process not hitherto designated, a phenomenon not yet comprehended. And further, it is a fact, that the muscles of a vessel do suffer an enfeeblement in their distended state; and that also they can be paralysed, only no one will easily divine whether the muscles of a distended vessel have actually already suffered enfeeblement, nor will he be able to distinguish whether a paralytic condition exist in a distended vessel, inasmuch as, in the former case, evidently collateral symptoms do not pronounce clearly on the question, and in the latter case, the somewhat gross lesion of the tissue does not give evidence as loudly as one would wish. For in an instance where we have ascribed enfeeblement or paralysis to the muscle of a vessel, it may happen, and that most suddenly, that the muscle reviving resumes its contractility, and the hyperæmic enfeeblement and paralysis disappears before our eyes. The homœopathic cures also are an evidence against the paralysis theories which have been invented in various forms since 1840.

Let us, however, for the present set aside this chapter of the debility and paralysis of the said muscles. I will endeavour to investigate in a separate treatise the manner in which the cure of an enfeebled or paralysed vessel proceeds.

So let us consider the phenomenon of a vessel springing open and remaining abnormally dilated as non-paralytic; let us also look upon the numerous cases of hyperæmia which daily occupy us as no kind of paralysis whatever; let us also not speak here of a condition of feebleness which occurs rather in the way of supplement to the dilatation.

This springing open, the flying open, and the permanent dilatation of the vessel is a singular phenomenon; and if we say that during the opening of the vessels their muscles have abated in power, and that no *active* dilatation takes place, we undoubtedly assert something correct and weighty, but then we merely paraphrase the facts thereby, and do not state their origin. What may be the cause of this enigmatical phenomenon, upon which, up to this hour, every judgment has turned out wrong?

"The circle is completed—the circle is interrupted," we may perhaps venture to say; so it must surely be—it must be a galvanic phenomenon, and the apparatus must be complete in each cell of the muscles of the vascular system, and furthermore, must stand in connection with the nervous centre of that system. If the circle be completed, then the muscles of the vascular system, in proportion to their closing, increase their activity; and if the circle be interrupted, then their activity abates proportionably, and the vessel becomes distended with blood. I have endeavoured to illustrate this extraordinary action of the muscles in question by a diagram.

Suppose the atoms in the efficient, *i.e.*, the nervous substance of these muscles, to lie, when in their normal condition, in this figure : : : : : : : : : then suppose a stimulus acts upon them, in consequence of which the vessel swells, they will perhaps place themselves aslant in the following figure ˙.˙.˙.˙.˙.

and then the atoms are displaced, and their normal activity will no longer exert itself, however capable the muscle may previously have been of doing so.

Whether we assume such a displacement of the atoms, or assume that the atoms take a greater or less distance, viz., during distension stand further apart, and during contraction touch each other more intimately, or if we assume that the electric tension of the atoms oscillates, rising and falling in various degrees—if I say we suppose such anomalies in the efficient corpuscles of the muscular substance, we may, I should think, render somewhat more conceivable to ourselves the phenomenon of dilatation and contraction of the vessels, and their alternation between these two conditions.

If, then, a vessel be dilated, it ought to contract again, and if it be contracted, it ought to dilate again to its normal condition, and the vessel does this, at least, often enough; but how does this go on? What is the *latens processus* in the phenomenon? To ascertain this process is very important.

First of all, I must admit that it profits nothing, or that it is only a blind help, if we contract the dilated vessel by pressure, by astringents, by withdrawing its contents, &c., or if we would dilate it by increased supply, augmented attraction, or forcible injection of blood. Such a procedure does not help us, or does so only accidentally, and the employment of such a procedure implies ignorance of the process by which the vessels give up their existing condition, and pass into another. If a distended vessel is refractory, one can actually tie, press, tear, and stimulate it; and for all that it does not do the thing required, but remains in an abnormal condition.

If, on the contrary, it is (so to speak) willing, thus when the displaced or strained atoms of its efficient substance are easily restored to their former condition, then frequently any trifling impulse suffices to accomplish the wonder, so that the vessel becomes normal under its influence. Conjunctivitis is treated with Lead Wash, with Zinc or Blue Vitriol, with Lunar Caustic, &c., and under this treatment the distended vessel may actually become normal and the inflammation may disappear, and that rapidly; then it is said that they have contracted the vessels, and the remedies seem proved; the physician rejoices, and the people praise him; but yet there is nothing in it all. For it was the vessels, or rather the atoms of their efficient substance, that were willing;. it was the displacement of abnormal tension of these last that was inconsiderable, or favourable, and any constraining cause, or any fresh stimulus sufficed to make them recover their normal condition, and that *voluntarily*. The cure thus succeeded quite blindly, and the physician had effected it, not by his astringents, not by the vessel-contracting power of his remedies. Surely one must not suppose that we can contract a distended vessel, and thereby render it normal! The contraction does not occur until a favourable change has already taken place in the distended vessel, and to this favourable change succeeds the self-contraction of the distended vessel as a second act, and as a necessary manifestation of the condition again rendered normal.

If one thinks, after this, that he has effected a contraction by his remedy, he makes a gross blunder. To be sure we can, by main force, contract every thing; but for all that we can not contract the vessel precisely to its normal circumference, still less can we thereby restore to it its normal activity. Nay, truly, it is the dilated vessel that must, *of itself*, return to its normal state and function. It must make itself normal, and no one can gain this point *ad libitum*, whether by the blind, fortunate success of an impulse, or through a sly and crafty observation of the laws under which the vessel exists. The morbidly active vessel must spring again into its normal state; it must spring back. It has sprung out of its quiescent state into one of dilatation, or of contraction, and it must spring back again. This *springing* is the correct expression—the process is, as one can even see, a downright spring, and in this regard I remember (to give an example) the phenomenon of vascular changes in the vessels of a rabbit's ear. Undoubtedly, too, the change of condition in a vessel may follow very slowly, nevertheless this slow change consists of several very small springing (*i.e.*, sudden) movements added together; for where electric currents are at work, and where, moreover, a special apparatus is chasing the blood onward with almost stormy speed, there are no lingering movements, and therefore it would be very wrong to ascribe only a slow movement to the muscles of the vessels. Besides, I remember gonorrhœa and the numerous varieties of injections employed in such cases, now to contract the vessels, formerly to produce an alterative action. The latter was a much more confused, but nevertheless, actually a more correct view. For as to the contraction. Oh! that will not do. But all the injected drugs merely give an impulse to the stimulated vessels, so that they spring back if they can, *i.e.*, if in consequence of such artificial stimulus they are able to do so.

One cannot *bonâ fide* contract any vessel in the body; but one can, by the supposed contractive drug, merely give it a stimulus, so that it contracts itself or springs out of its dilatation into a narrow calibre; and even the physical contraction itself has its limits. The abnormally secreting mucous lining of the urethra can be forcibly made to shrink up; but all remains as it was, only in smaller compass, unless the vessels, partly in consequence of the constrictive stimulus, spring back of themselves to their normal state. A vessel can be made to shrink up under the actual cautery; but then it is destroyed. Every distended vessel then which is to recover its normal dimensions, must return to it by means of its own agency, nay, we may say, by means of its own will; and all that can be applied to it for this purpose can merely give it an impulse to that action.

Accordingly, if the contraction of a dilated vessel succeed through any adventitious impulse whatever—this nevertheless proves nothing; that is after all merely a fact accomplished blindly. Unfortunately much has to be done before this trifling fact will be at all explained.

Again, one can not dilate a contracted vessel by the influence which we exert upon it, unless, under this influence, it springs open of itself; and as we cannot dilate the contracted, so neither can we contract the dilated vessel by our forcible efforts, and according to our absolute will.

And suppose we could actually, by our remedy, reduce a vessel from the dilated to the contracted state, it must surely be impossible by the same remedy to bring it out of contraction into a state of greater dilatation; for we frequently employ the selfsame remedy for the double purpose of both dilating and contracting the vessels! By China we dilate the contracted, and by China we also (as we are in the habit of saying) contract the dilated vessels; with Ferrum we act curatively upon contracted, as well as upon dilated vessels; with Arsenic we treat the dilated vessels of an inflammation, and also the contracted vessels of an emaciated body, and that too, *cæteris paribus*, with equally good result; with Ipecacuanha we stop hemorrhages, *i.e.*, cause dilated bleeding vessels to contract themselves, and we can also with Ipec. cause the vessels to distend to such a degree that they pour out blood, &c. It is, therefore, the vessels' own proper act, when they recover their state of dilatation or contraction, and thereby become normal again; and so it *was* their own proper act when they sprang out of their quiescent state into that of dilatation or contraction. It is merely a rightly directed stimulus that gives them the impulse to effect this act; one stimulus causes it, another removes it. This second stimulus, which is said to impart to the already stimulated vessel another impulse, another irritation, whereby it springs back to its normal condition—this second stimulus, however, must not only be *rightly aimed*, but it must also be rightly measured, and of proper quality; it must, according Hahnemann's doctrine, be a "*simile*." I do not, however, speak of that here. I will merely sketch the *manner* in which the vessels act, when they relinquish an abnormal condition in which they are found. I must however, in the meantime, insert a few words in regard to the specific, or "*simile*." A gross impulse—thus any violent stimulus superadded to the already stimulated vessel must, undoubtedly, give to many a vessel a definite inducement to alter its condition, and this alteration may be a fortunate one, of course, merely by accident, as must needs be the case with an impulse that is given at random, and withal on a large scale. Also, in the case of a vessel easily influenced, almost any influence may occasion it to spring into its normal condition. This is why it is so difficult to assert, upon the completion of a cure, that a given remedy has acted *specifically*. A cold, for instance, may, under certain circumstances, disappear, and that easily, speedily, and positively after the most dissimilar modes of treatment; and yet one cannot, on this account, ascribe to the curative means any special relation to the vascular condition which it removed, and therefore cannot, after all, call it a "specific." Leeches, cupping, venesection, purging, vomiting, cold and heat, pressure, rubbing, muscular movements, &c.—all these operations may produce all sorts of effects, and yet nothing whatever of a specific character may result for the scientific apprehension of the process of cure. Fire, on the right spot, must often, and in various ways, effect much good, and electricity must have its results also; but yet, even their curative action proves mere generalities, nothing specific, for the study of the inherent morbid activity of the vessel. But it is just this condition that is *the* object of therapeutic study, *the* hinge on which every thing turns, and the right comprehension of this condition in therapeutics is *the* problem of scientific medicine.

The mere cell theory does not suffice at the point where there is an enigma in the action of the ultimate particles.

As many an abnormal vessel has to accommodate itself to the gross, and to the casual and the *ad libitum* impulses, and under their influence springs, as if voluntarily, into its normal condition, so also it accommodates itself to many refined impulses, without any necessity for their having, for that purpose, any *specific* significance. Aconite in a state of dilution may advantageously affect many a vessel, so that it springs back from the dilated condition to its normal state of contraction, and yet the Aconite need not for this purpose have any special relation to the existing abnormal vascular condition —a merely general suitability may allow even a homœopathic remedy to become useful. Phosphorus diluted may remove an inflammation of the lungs, because it is a powerful medicine, because, when diluted, it enters with sufficient subtlety, and because the vessels have, in a manner, a certain willingness, and thus, Phosphorus in a diluted form may bring about the desired effect, and yet it is not therefore the specific. Secale

Cornutum when diluted may, under the same circumstances, effect a cure in the uterus, and yet, in like manner, is not, for all that, the right medicine. Diluted Arnica may, in case of wounds, vertigo, hæmorrhage, &c., remove all symptoms, and yet even the Arnica is not therefore of necessity the specific, just because the case was an easy one, owing to the willingness of the vessels.

The mere weakening of the medicine by its dilution, opens to it a wide sphere of operations; nevertheless, the great capability acquired thereby ought not to mislead us into a decision upon its specific efficiency. As we are at present unable to say wherein specific power consists, so it is also as yet necessarily difficult to distinguish whether, in any case whatever, a medicine has effected a cure through its elective and exclusive relation (and thus its "specific" relation) to the anomalous condition of the morbid activity of the muscles of the vessels, or whether it is indebted for the appearance of this fact to nothing more than its general stimulative action, and to the favour of circumstances. Further, the more the proving of medicines speaks to the point, the more we are able to ascribe the specific importance to the curative action of the remedies, and this is hitherto the solitary resting place, though still unsettled.

After this episode on specifics, I will proceed to describe the part played by the vessels when they relinquish a state of abnormal activity, and when, consequently, a morbid condition disappears before our eyes, and actually very often dissolves away (as it were) into nothing. One must start from this point —that the vessels, under the influence of a stimulus, open and close themselves by their own act, and thus they more or less co-operate; from this truth, I say, one must start, in order to comprehend their changes during the commencement and departure of diseases, and must refrain from the force with which we have long enough been trying to master them, after the manner of parts or organs entirely passive. The result obtained by such force is only to be considered as the effect of accident, and it is not the physical power of the force directed towards the distended or contracted vessel that produces the result, but it is the stimulus that comes into operation in this force, and that corresponds to the physical power of the atoms in the active substance of the vessels.

It is an inner dynamism, but of such a kind as no longer to permit the previous gross, crude, and superficially physicial comprehension of the subject, or at least no longer allow any decisive significance to attach to this last. Where we exert a pressure, it is not the pressure, but the stimulus that is effective; where we use an astringent, the astringent is only the medium of a stimulus; if we apply a stoppage, we in like manner effect, directly or indirectly, a stimulation of the active substance composing the muscular coat of the vessels, and so forth; and whatever it be, physical, chemical, or functional, that is set in motion by dint of curative agency upon the morbidly active vessels, it is only the stimulus acting on those last that is effectual.

Under the influence of a stimulus a vessel springs into an abnormal calibre, and under the influence of another stimulus it must spring back to its normal state; if it was contracted, it must spring open—if distended, it must spring together to the respective average amount. These alterations the vessel can assume even of itself, when the atoms of its active substance, which had got into a morbid state, have sufficiently recovered themselves under the influence of the nutritive metamorphosis. If this does not happen, or is too tardy, assistance must be given by a fresh stimulus. Now, assuredly, there lies something daring in this idea of conducting a fresh stimulus to the vessels already excited by a previous one, in order that, under this new impulse, its displaced or abnormally stretched fibres may recover their normal position. This is something daring, and it is so much the more so in proportion as it is deficient in method and management.

It is, we say plainly, if it be not consciously executed according to natural laws, a piece of artifice; and because it was mere artifice that was practised, people spoke of the "*art*" of medicine; and it is merely because the morbidly active vessel, or the atoms of their active substance, often have a certain willingness, or have given way in favourable circumstances, that this "artifice" could appear a trifling and safe one, and medicine an easier thing than it really is, and for this reason the profession of medicine is often practised with levity. Against this unfortunate prepossession, with its terrible consequences, there is no defence but the study of the process of cure. In proportion as we comprehend this, another view must gain ground; and along with the respect paid to the attempts at curing must professional earnestness increase.

In reference to our subject of cures by the capillaries, we must thus try to determine how the abnormally active vessels behave when they come in contact with a curative substance, and this behaviour we must follow up even to the finest and most subtle peculiarities. This I will endeavour to illustrate by some examples.

Suppose a case of choroïditis. Now, it may be that originally merely a single twig of a vessel became abnormally stimulated; but secondarily, the vessels in the whole extent of the choroïd membrane are swollen, just as in panaritium also, the disorder sets out from a single spot; though, secondarily, the finger and hand become extensively hyperæmic and swollen. Suppose Belladonna be administered for the hyperæmic vessels of the choroïd; then this medicine imparts a new stimulus to these already stimulated vessels. But if this new stimulus be too strong, then those vessels of the choroïd will not, as we wish, spring into a narrower calibre; but they will either swell still more, or else they will perhaps contract a little; but while a state of abnormal width still continues, they will only so much the more tightly contract upon their contents, and by driving them on more forcibly, increase the injection. It is thus possible that Bell., suitable as it may be in itself, may produce aggravation of the ailment, and a new irritation even of long duration may be communicated to the vessels. Moreover, it will not unfrequently (especially if our observation of the medical effect of the remedy be so careless) be difficult to recognize this induced aggravation. Suppose dimness and darkness constantly before the eyes, before and after, a trifling *increase* of the darkness is not noticed; little stars, flashes, or colours show themselves perhaps, but so small and so feeble are they, that the listless patient does not observe the fact; and perhaps the eyeball becomes somewhat fuller, but so slightly that the finger finds no difference between yesterday and to-day. The Bell. is given up, because presumed to be unsuitable; but no one observes that it has done harm. Nevertheless, it might have been a suitable remedy here; but, from exercising too powerful an influence, it missed its aim. As it is the quality of the medicine, so also it is the quantity, by whose help one studies the behaviour of the vessels during the process of cure; and the variation of dose will especially be the coadjutor, to the beginner at least, enabling him to penetrate most easily into the depth of the matter. Suppose one has hitherto taken a merely superficial notice of the behaviour of the vessels during the process of cure, he must in fact acknowledge, with wonder, that a host of physicians are adherents to the doctrine of the small doses. There are also in reality infinitely small and fine parts in which the activity of the capillary muscles is contained, and there are infinitely refined changes which constitute the abnormal condition of these muscles; it will therefore be necessary, if we will act according to the right rules of art, to work with extreme subtlety, and the more so, the less we are able to hit the mark, *a priori*, with certainty.

Moreover, the preparatory school for these capillary studies in man, during the curative action of medicine, is formed out of the studies resulting from the application of the medicines to the denuded capillaries of the lower animals, either mutilated or living.

Again, suppose a case of *prolapsus uteri*. Here Secale Cornutum will effect something. Here, the vessels of the *uterus* and the *vagina* are affected, not certainly both in the same degree, nor in a similar way; and the respective vessels in each have also a very different nature. Now, suppose Secale be given in rather too strong a dose, then this medicine may perhaps influence beneficially the vessels of the prolapsed vagina; and whilst they spring into their normal calibre, it is possible that, during the remission or disappearance of their distension, the consequences of the latter, viz., the abnormal fulness and weight of the vagina (and therefore the prolapsus) may amend, or cease altogether; on the other hand, the Secale in the dose employed, may also at the same time increase the ailment of the uterus, so that, for instance, partial swellings in the parietes of the uterus may come forward more evidently after it, or (as one, perhaps with less experience, or merely from a different interpretation, would say) they may originate as a *consequence* of the medicine. Here, sure enough then, the vessels sprang under the Secale treatment into a more normal condition, and thereupon contracted to a normal, or, at any rate, to a better calibre. If one has recognized the fact that, wherever animal activities exist, nothing essential, nothing fundamental is to be accomplished by gross physical influences, and that the living tissues do not allow themselves to be *driven* into their normal condition, but require to be *led* back to it almost by cunning; one shall proceed much more rationally and discreetly than when short of this apprehension; and so much the more discreetly, if one further considers that the vessels of each part of the body, and of each organ, have a distinct and specific endowment and natural gift, and that, consequently, the stimulus which acts on them beneficially on any given spot, is not permitted to excite the neighbouring vessels, and the vessels of distant parts of the body, to a prejudicial activity. Neither allopaths nor homœopaths have learnt that the vessels spring out of their abnormal calibre to the normal, and out of the abnormal distension of their parietes to their proper distension—in other words, recover *themselves*, and, in fact, by their own proper power; of themselves in spontaneous cure, and in consequence of an impulse, in cures brought about designedly. But whilst the allopaths, by their depletive, tonic, and astringent treatment sought to contract the vessels, or by various grossly physical operations, to enlarge them when contracted, and thereby upheld the type of cure *vi et armis* as the paragon; the homœopaths have followed out, in its general outlines, the marvel of the specific, or, as may also be said, the spontaneous cure; and they have, by their cures, at least permitted or caused the facts of the process of cure, as here sketched out, to come to light. And there lies in the homœopathic cures a deeper meaning—there lies in them the entire model of the therapeutics of tissues, and what has still more significance, of the atomic principle of cure.

The profession may, some time or other, learn to cure better than the homœopaths do up to the present time; but as for the question, how the curative operation of the medicines arises, and how, by the impulse which the medicines give to the tissues, to allow the proper action of the latter, with the least possible disturbance, to succeed in the happy solution of a morbid state—this in fact cannot, in essentials, be answered in any other way than the Homœopaths *have* done it.

How, for instance, did the cure come about in the following case?

A lady, aged 72, who had suffered a whole twelvemonth from intercostal neuralgia of the right side, gradually began to experience tightness of the chest, hardly perceptible during rest, but on moving, walking, or climbing, severe; and at last so severe that she could only walk a little way, and slowly, and could no longer get on at all on a somewhat rising street. All treatment continued ineffectual, and the sympathy bestowed on the patient was great and general.

So Chamom. 12 was given to her (one drop only), and in half an hour she walked somewhat more easily; on the next day, there was a loud pæan sung that the lady's shortness of breath had disappeared! The removal of this complaint was indeed a striking fact; and it has continued permanent for a whole year. Well now, what had happened here? Here were the vessels of the heart, and probably also of the lungs, already involved in an abnormal distension, and this distension was increasing, and was aggravated in a distressing way by movement. To these vessels then the Chamom. gave an impulse, in consequence of which they sprang back to their normal calibre, lost thereby their abnormally swollen state, and thereupon could endure the action of walking undisturbed. It was a cure similar to that which often enough is effected on the maxillary vessels in toothache, also by Chamomilla. Why Chamomilla must have been the remedy here, that question does not at all concern us here (although that lady also perspired habitually on the head very much, and amongst the hair not a little). But that the Cham. here did good in the way specified, we cannot, it is true, see with our eyes; on the other hand, it follows step by step from the facts—nay, it follows from all facts, that there is no essential difference between the behaviour of the vessels in this cure and the oscillation of the vessels in the ears of rabbits. The Chamom. re-established the normal direction between the atoms of the active substance in the capillary muscles, and in consequence the vessels returned to their normal condition. The Cham. did not contract them, but only restored the functions, whereupon they contracted *themselves*. When the above discussed process in curing vascular affections is understood, and the behaviour of the vessels during that process investigated in all its individualities and peculiarities, then only can we have pretensions to disclose the essential nature of a "specific."

Again, suppose an anæmic condition, with emaciation (and let the case be one where the system is attacked by no inflammatory ailment at the same time, which would have required to be removed by the resilience of the vessels existing in a state of distension and injection at the focus of the inflammation), then the vessels are involved in a state of abnormal contraction and have need of an impulse, under which they experience, as it were, an electric shock, in consequence of which the atoms of their active substance get into a more normal condition, at the same time their action also becomes more normal, abates from its undue amount, and the calibre of each vessel again becomes dilatable for the blood that rushes into it. China, Ferrum, and many other remedies might here have given the favourable impulse; but it is not every medicine that suits in all cases.

All medicines which give the vessel an impulse tending to distension, can also give them an impulse in order to remove their possibly present distension, and to contract themselves; and there are no medicines that can limit them exclusively to the accomplishment of a distension or a contraction. Electricity can solve both problems in the vessels, and in like manner every remedy. The very acids which, even in small doses, have such a dominant influence over the capillary muscles that these contract themselves; even the very acids can induce a distension of the vessels, and that instantly, at the first touch.

It always depends on the existing state of the vessel whether it will answer in one way or the other, and one cannot command this, unless the force employed succeeds by accident; but then still the question is, whether this *forcible* success is truly and permanently beneficial. On the other hand, there are medicines which, as a rule, determine distension of the vessels, and others which, as a rule, determine their contraction—and those which determine distension are the most numerous. We may also say, that all *weaker* medicines and influences are apt to distend the vessels, and all *stronger* ones to induce their contraction, unless some existing abnormity of the vessels exerts a directly counteracting agency, as is actually the case in disease. It is also true that all substances and influences whatever that act at all on the vessels, distend those vessels, and that all those same substances and influences *can* also make the vessels contract themselves.

But as all stimuli can cause vascular distension, and do so in their primary action—thus, at the instant when they come in contact with the vessels; and farther, as in hyperæmia and inflammation the vessels are dilated; and lastly, as every thing that causes the vessels to distend can also prove beneficial, by communicating an impulse, as a remedy for existing distension of the vessels, thus *similia similibus* is confirmed, although in this argument it can only pass as a very general expression for vascular therapeutics.

If we take coffee for breakfast, we acquire for the forenoon a greater capability of endurance, and we feel ourselves till mid-day, and perhaps all day long, better, warmer, and stronger than if we had drunk no coffee. Now, independently of any other effect of coffee on the tissues, how do the capillaries behave during this action of coffee? Coffee pre-eminently induces distension of these vessels, especially when combined with warmth, and taken, furthermore, with blood-making substances, it imparts, as it circulates with the blood over the body, an impulse to the vessels provided with muscular fibres, in consequence of which the atoms of their active substance experience a kind of electric shock, with relaxation or displacement, whereby the muscles for a moment become less energetic, and consequently more yielding to the pressure of blood, and hence, suffer still further distension. As a result of these changes, the vessels become hyperæmic, and there arises all over the body a distended condition of the vessels, not so transitory as when one incorporates *water* with them by drinking, but in very different degrees *much more lastingly.* During this increased and prolonged distension of the vessels, the blood stays longer in the tissues, and can thus serve much better and more effectually for feeding them, and also, by means of a more lively maintenance of the nutritive process, for producing the needful warmth. In consequence of this we feel better, and that for a longer time than if we had *not* taken so distensive a beverage for breakfast. Also, because the blood stays longer in the tissues during the act of nutrition, it cannot during that time be much filtered through the secreting organs, and hence, it was found that coffee diminishes the secretions; it was accordingly said that coffee retarded the nutrition, whereas it rather *prolongs,* and in every respect *promotes* it. But then, if *coffea* is given for excitement of the cerebral vessels, this medicine can, in suitable circumstances, and in the right dose, produce an entirely opposite effect, for here it meets with vessels already distended; and, in consequence of the impulse which it gives those vessels, they are enabled, by their own proper power and act, to spring back to their normal calibre.

It is an old joke to say that the *meals* of a Homœopath ought to be as small as his doses. But had people at all considered that the exhausted material must be restored to the body—had they at all imagined the activity of the capillaries—had they taken any notice of the fact that Homœopathy is eminently a process of cure by means of the powers of the tissues themselves, they would not have perpetrated such a witticism. If the vessels merely have to spring back to their normal condition, then *small* doses are not to be despised, if it is meant that medicine should be a profession carried out with precision and with success. But if it is intended to bring the normal vessels into an artificially abnormal distension by means of nourishing the body, then we must give large doses of the substances calculated to stimulate and to feed, and the result will vary directly as the quantity of the dose, so far as this last does not by its magnitude cause some injury, which in that case again defeats the result. Contraction of the vessels requires larger doses, in order that they may distend; distensions require much smaller doses, in order that the vessels may contract.

This also must be kept in mind, that no force ought to be applied to the vessels during the process of curing. This can have a favourable result only by mere accident, and often barely for a moment. Moreover, that the vessels put themselves into an abnormal condition, and restore themselves to a normal condition, and that, to this end, they require nothing but an exciting impulse. A congenital or acquired infirmity in the atoms of the active substance, and a feebleness in the structure of the parietes of the vessels, may push the above mentioned process of the vessel to an excessively morbid condition. In like manner, a tendency to decomposition in the blood, and a tendency to over-development in the cells may greatly complicate the morbid activity of the vessels.

Sometimes the vessels spring back easily, sometimes with difficulty; sometimes quickly, sometimes slowly; sometimes perfectly, sometimes imperfectly, or only with the appearance of perfection; sometimes at one bound, sometimes by starts, &c., and herein there are modifications and variations. Now, it should be borne in mind that the vessels change their condition merely by their own act, and that this motive phenomenon, like every electrical phenomenon, makes its appearance with a certain suddenness, however small be the change of movement in each instance. But as the behaviour of the vessels is known in *general,* now it further remains for us to study this behaviour in particular, thoroughly and exhaustively, and also to observe how, with what peculiarities, and in what special ways the vessels effect this act of change; *i.e.,* we must seek to investigate the modality of this act, and this must be done whether we be homœopaths or allopaths, and whether we deal with the vessels in this or in that way. Thus, if you have a mind, in a case of inflammation, to render the vessels normal by depletion, *i. e.*, if you have a mind, by diminishing their contents, to communicate to them an impulse towards alteration of their state, you must at the same time take notice, how strongly, how rapidly, how permanently, &c., they spring back, just as much as you would, in case you wished to provoke this spring by Aconite, Bryonia, &c.

The study is the same for both; but in the allopathic dealing with the capillaries, or at least the dealing by means of gross attacks and gross doses, the fruitlessness of this study will soon disgust the physician.

The disease and the individuality, in short, the condition arising from abnormal vascular activity, the medicine, and the dose—these three things come essentially under consideration in this study.

The remedy may, both in degree and manner, act excessively on the morbidly active vessel, and it may thereby primarily aggravate the existing condition—a phenomenon not uncommon, and easy to be noticed in the detached leg of a frog. Thus, Aconite may primarily increase an inflammatory fever, a headache, a pulmonary affection; Bellad. may primarily aggravate an irritation of the brain; Bryonia, a rheumatism—and after this aggravation the medicines may at last cure the said disorders. In such cases the process is as follows:—The *distended* vessel in the immediate seat of disease, after too rough a qualitative or quantitative handling, gets at first into a still *more* distended state (just as, in other cases, the morbidly *contracted* vessel, in consequence of too rough handling, gets at first into a still *more* contracted state), and it is only subsequently, after the first impression has lost its power, that the opposite, *i. e.*, the desired action is established. But this desired effect may, after some time, disappear again, and the disorder then turns to either the same, or a somewhat altered or mitigated form, whereupon it again disappears to make way for permanent amendment. Yet such an alteration may set in three or four times, and one may consider such recrudescences as pertaining to this category in proportion as they are repeated more feebly. Now, this is the "vascular oscillation," which is the property of all vessels, and consists in this, that a vessel incited by a stimulus repeatedly oscillates between distension and contraction, before it has assumed a permanent condition of its activity; and if any one should think of shortly sending a new remedy, or a fresh dose after a medicine which had, during the process of cure, provoked such an oscillation, excessive mischief might be done, and the induced action sadly disturbed, although, even here, blind chance may occasionally be favourable to a foolhardy meddling interference.

Thus, the resilience of the morbidly active vessels depends very much upon the quality and quantity of the impulse which is communicated to them. I need not, however, inform the homœopaths on this point. By their unfrequent repetition of the medicines, and by their small doses, they have already long since hit upon that which I have found in other ways; they have, by observation true to nature, and by quietly listening to her voice, found a something pregnant with results, which even already one cannot choose but designate as "capillary therapeutics." All medicinal remedies are capillary remedies; nine-tenths of all disorders are capillary affections, and if then a physician, whilst either exclusively, or, at least, in a very predominant degree, he has to do with capillary affections and their remedies, attentively watches the diseases and the operations of medicines with unprejudiced mind, it must be strange indeed if he should not collect facts which are also discovered by other means, and which one must regard as pertaining to the physiology and therapeutics of capillary action.

In the behaviour of the muscular-walled vessels during disease and cure, there certainly lies no inexhaustible variety, and it rather seems to me that this behaviour may be reduced to no very numerous modifications, nor do I think that it is, in its diversities and peculiarities, so unfathomable. On the other hand, there lies in this behaviour a something so singularly and strangely striking, that physicians are inclined to turn away from the subject, and that is the provoking circumstance in the matter. Accustomed to ancient conceptions, the physician is not inclined, as it were, to watch the atoms at work, and to observe life in its very inner movement, and he is so much the more hindered, as he will not let go the idea of being able to act through general physical views directed to the grosser parts. Meanwhile, nothing else remains, but to go to the innermost core of the question, and to collect the phenomena, however strangely they present themselves, in order to work them up into a physiology of the capillary vessels.

As man's mind appears so unfathomable, and yet is not at all, so is it also with the muscles of the capillaries, and I often compare in my own mind the morbidly active vessel, which I am treating with medicines, to a man! Both have their peculiarities, which one has to study quietly, and which do not lie on the surface.

One throws, for instance, often by accident, a thought into a man's mind, and there it sticks, and works after weeks pass by, and the thought breeds and works on the brain fibres, which it has excited, and at last the thought is become a fact. In like manner often is the action on the capillaries. A medicine is given, perhaps only one dose, and the medicine comes in contact with the morbidly acting vessel. Nothing, however, betrays this immediately or else the patient feels it, but says nothing. Days go by and then an alteration will seem probable to the patient and again days elapse, and gradually out of the totality of symptoms traces of amendment shine forth more and more. This appearance increases from week to week, and at last the amendment has become an unmistakeable fact, and the doubtful mind must acknowledge that the medicine in one dose, or in small doses, has commenced and perfected the cure. People speak then of the after effects of the medicine, and of letting it exhaust its action. It seems plain enough that these are obscure expressions. However, it is correct that many a morbidly acting vessel does not bear much of the curative impulse, and, at best, passes over gradually into its normal condition, after it has, by a slight stimulus, learnt to make the first step in that direction, and to this point I feel bound in this treatise still to call attention. For it is true that the morbidly acting vessels often enough, and in a surprising way, spring back suddenly, and at one bound remain as innocently as if they had never done anything improper, or had never known how to do such a thing. But these striking cures, although they should be to us as brilliant models never to be forgotten, ought not, however, to dazzle us, so that we should doubt the possibility of every other *modus operandi* in the behaviour of the vessels during their resilience. Who can even say that the vessels ought invariably to spring back so very suddenly? and who can obstinately expect invariably to induce this by the choice and the dose of the medicine? It is possible that many affections of the capillaries exist in nature, which can only be brought to a happy termination by a succession of these resiliences.

The humour and temper of the vessels, if such an expression is permitted—the peculiarities in the return of the vessels to health, which have been but generally indicated, in short, their proper action—this it is that must be studied in order that treatment may be as successful as possible. For even this is not sufficient, that one should gain a subtle hold of the morbidly active vessel by a power of medicine diminished to the utmost—subtle, that is, in accordance with the minutely fine, and certainly often very trifling alterations in the active muscular substance of the vessels themselves; but even the impulse itself requires to be given in proportionable unfrequency, because it is always the proper, and in many regards, the *free* action of the vessels that must effect their return to the normal condition.

To draw attention to this "proper action" of the vessels during cure, and to advocate the idea of letting this proper action predominate in medical treatment is the object of this treatise. I have pointed out, in general, how the capillaries behave during cure; but the varieties and peculiarities in this behaviour must still be investigated in particular. This will be done if, after the student has made himself expert by experimenting on dissected vessels proper to the subject, he transfers the various processes of amendment, which he observes in vascular affections, to the vessels themselves, and thence, led by the experimentally investigated action of the remedy on the capillaries, and by the provings of that same remedy he construes the behaviour of the vessel during curative action, and at the same time investigates the peculiarities of this behaviour, not only with reference to the quality of the medicine, but also to the quantity and frequency of the dose.

What I have said in this treatise is new; yet, to the homœopaths, the rules of cure, and the grosser facts of the process of cure which I have touched upon, are not new. In consequence of a wonderful observation of the effects of medicine and of curative action, they have already attended so much to the diseased human body when under cure, that future observers will find it difficult to discover anything new here. On the other hand, they have missed the direction which they ought to give to their observations and experience, and so they missed the objective and real ground, the material and clear basis.

It is therefore the capillaries, it is the activity residing in the muscles of the capillaries, and it is in that "behaviour of the capillaries" which has been here investigated in its many peculiarities in the transition from one state of their calibre to another by their own proper activity, to which the homœopaths will have to direct their observations in their treatment of vascular cases, and as vascular affections and vascular treatment are the most frequent of any, it is to them they will have to direct their attention in a great majority of cases, with the aid of the physiological investigation of the process of cure.

But, in conclusion, I recal once more the capillary oscillation in the rabbit's ear, which will ever be, for every one who wishes to follow up studies of this kind, the first rough sketch of a phenomenon which extends in unmeasurable importance over the whole body.

THE ALTERNATION OF MEDICINES.

By J. Gelston, L.F. Ph. G.

(Read before the Liverpool Homœopathic Medical Society).

Homœopathy, by its practice and pretensions, would seem to have reached its *ultima thule*, or the *ne plus ultra* limits of medical lore. Science, with the faculty would appear to have arrived at a common par, or dead level. The flights of ambition are chiefly confined to pamphleteering, or catering for the public in the form of "Domestic" treatises, which as faithfully resemble one another as a family of turnips, and are now as nauseatingly plentiful as potatoes were in Ireland, before the rebellion between these esculents and the elements. The merits of these productions for the most part consist in facile *rechauffés* rendered from Jahr, Possart, Bönninghausen, Hering, and that elite confraternity. I by no means wish to disparage the services conferred on the community by the labours of disinterested writers, but the profusion of these works tends to excite some degree of scepticism as to their assumed philanthropy. With regard, however, to these at least, if not to the wholesale condemnation of the more legitimate offspring of the press, I am strongly inclined to coincide with the conclusion of Dr. Roth:—"Even as it is my most firm conviction, that one day the truth and absolute value of *similia similibus* will attain a general recognition; even so am I as fully persuaded, that all our hitherto published works, the whole list of our provings, all our cases of diseases, with very few exceptions, will pass to oblivion."—(*Hom. Vierteljahrschrift, Elft. Jahrg. Dritt. Heft.*, 1860). The following sentence of this logical thinker is highly suggestive, and will be I hope thoroughly appreciated—"As the bases essential to proper researches are as yet wanting to us, as many of our dictators have never yet entertained a misgiving, such as a single proper experiment would excite, so each one concludes, looking through the spectacles of preconceived notions, observations to have been truly discoveries proceeding from experiments."—(*Ib*).

In Huc's Travels in Tartary, we learn—"The pharmacopœia of the Lamas, who are at the same time apothecaries, consists exclusively of pulverized vegetables, administered either as infusions, or rolled into pills. If the little magazine of vegetable medicine be exhausted, the Lama doctor is not at fault. He writes the name of the remedies upon morsels of paper and rolls them between his fingers, having previously moistened them with his saliva; and the patient takes the paper pellets with the same faith as he swallows the veritable drugs. According to the Tartars, it is precisely the same whether you swallow the drug or its written appellation." I would strongly commend this last sentence to the experimental enquirer. Negative evidence is a great desideratum. If, instead of the medicinal alternation so much in vogue, the mere ideal (in Sugar of milk form) were presented to the patient, and comparisons thereby instituted, some useful conclusions might be deduced. Data might also be furnished, by the same means, of the comparative excellence of those representatives of physic, the high dilutions, and the pure ideal. The result would determine whether the dictum of opponents be just, that things which are equal to the same are equal to one another.

So much by way of exordium. I now proceed to the subject in hand. The propriety of alternating medicines has excited considerable controversy. In Dudgeon's excellent *Lectures on Homœopathy*, opinions *pro* and *con.* are copiously set forth. Only a few of these require our present attention; I shall therefore merely refer to those which seem to me more pertinent to this enquiry, or more appropriate for quotation. Hahnemann, whose notions were so variable on all points, begins to lose in respect of authority, by reason of his notable inconsistencies. In the first edition of the *Organon* he considers the practice expedient; in later editions he discountenances it, for the reason that the number of proved medicines suffice for all contingencies, and also on the ground that we cannot tell what alterations the first remedy shall have effected. In some diseases—those of acute and fixed character—from experience of its advantage, he advised the alternation of two or more remedies. Thus, in a peculiar kind of typhus, he recommended the alternation of Rhus and Bryonia; in an epidemic of purpura miliaris, the alternation of Aconite and Coffee. For the prophylaxis of cholera, he advises the alternation of Cuprum and Veratrum, a proceeding which Hering condemns, as those remedies, he says, will be unable in the very least to afford that protection against what they possess in common.

Of the famous author of *Don Quixote*, a satire which extinguished the extravagant passion for knight-errantry, it is related by his biographer, that in his old age he betook himself to writing romances every whit as absurd as the most absurd of those which he says turned the brain of his own hidalgo. A like declension would appear to have befallen the latter days of the hero of homœopathy. Among the first attacks of Hahnemann on the practices of the old school, were denunciations against its complex prescriptions; and almost his first entreaty to his colleagues was to give but one medicine at a time. Lux, the inventor of the isopathic system, asserts that Hahnemann, in a letter addressed to him, sanctioned the proposition of mixing medicines, and that Hahnemann's views concerning this subject would have been published in the last edition of the *Organon*, if the physicians to whom the publication of this edition was confided in Germany had not taken upon them to suppress them. The medicines intended for mixtures were probably those which Lux himself proposes, viz., those which are deemed proper for alternation.

Hering commends the administration of the remedy in alternation with its antidote; a proceeding which, to my humble conception, appears illogically unphilosophical.

Hering holds, it is true, indeed, that there are no such things as antidotes, that completely do away with the action of a medicine; the stronger medicine always continues to act through the weaker. Whatever that precisely means, I am somewhat at a loss to determine; perhaps he fancies that medicinal potencies enjoy the happy faculty of transmigration. The argument naturally leads towards the *non*-impropriety of admixtures. Taken in connection with his other idea, that any disease may be cured with any remedy, entitles him, I think, to rank with the philosophic Lamas of Tartary.

"Dr. Trinks says that the practice of alternating two medicines is adopted nominally in those cases in which, among the list of proved medicines, the most appropriate one cannot be discovered. But he quietly hints that this may not be always the true reason for the practice, but that it may sometimes be owing to a subjective want of thorough acquaintance with the Materia Medica. It is, he says, strictly speaking, contrary to the principle of homœopathy, which allows of the employment of but one remedy at a time; and another remedy ought not to be given until the action of the first is carefully noted, for it may effect such a change in the morbid picture as to cause the second medicine to be no longer indicated. Homœopathy demands the greatest individualization, and the greatest carefulness in the selection of the remedy, and cannot sanction such a procedure, the less so as the supply of well-proved medicines is now so great as to render it almost an impossibility that we should fail to discover, amid the recorded pathogenetic symptoms, the counterpart of the disease we have to treat. As a makeshift in certain cases, the practice may be allowed; for two remedies given in alternation do often mutually support each other's action. But these cases are at the best exceptional. There is no doubt that it tends to obscure our knowledge of the action of medicines." (*Lectures on Hom.*)

Herr von Bönninghausen, in his views on the selection of the remedy, observes that most likely all homœopathists, on first commencing the study of the system, felt as he did, that the pathogenesis of almost every medicine contained the elements of every disease under the sun;—a fact which may have originated the universal-efficiency doctrine of Dr. Hering heretofore referred to.

Dr. Dudgeon is variously inclined on the subject. In chronic diseases, he holds it to be a practice rather to be reprehended and avoided; in acute disorders, on the contrary, he considers it judicious to moderate the fever by a few doses of an antipyretic. In many acute diseases, he says, our medicines are employed rather for the sake of moderating the violence of the different stages, than with the hope of cutting short the entire malady. This is very much after the style of the "general principles" practice of the old school; but the advantage of resources is on the side of the latter, as, besides antipyretics, they luxuriate in diuretics and peristaltics, besides other "ics" and "ogues." This routine, moreover, is an evident abnegation of the claims of homœopathy to be considered in the light of what Hahnemann had primarily intended to designate his system—*specific* medicine.

Hempel, whose *rationale* of the *similia similibus* principle is not a little enthusiastically fantastic, says on the subject of alternations:—"In chronic diseases we generally confine ourselves to one remedy at a time. The method of alternating two medicines at regular intervals is generally resorted to in acute cases only. It should be remarked, however, that in many cases this method of alternation is an expedient shift rather than a usage necessitated or justified by principle."

Antidotes in physiological relation are obviously comparative. The purgative action of a drachm of Jalap would exhibit no appreciable contravention by the addition of a drop of Laudanum; on the other hand, the peristaltic influence of 10 grains of the former would be partially or totally controlled by a grain of the latter. In like manner, in infinitesimal doses, antidotes must bear a positive relation. The very doctrine of homœopathy is subservient to this principle. The physician, in his zeal to cover the totality of the disease-symptoms, selects a medicine whose pathogenetic action possesses the nearest counterpart to those of the complaint. The process is evidently antidotal; to deny which is tantamount to assert that the *similià similibus* is false. I hold it, indeed, to be the fact, that if the actions of two medicines be characteristically and intimately allied, they do not antidote each other, but that they exaggerate the total operation. And I am likewise firmly persuaded that if a very precise analogy—that which is regarded as so very desirable—obtain between the medicine and the disease, an aggravation or amelioration will follow, according to the stage or character of the disease. We know for certain that medicines whose action is very similar, when exhibited in quantities sufficient to evoke appreciable pathological effects, exalt each other's influence. It is contrary to reason to assume —though indeed it is maintained—that infinitesimal doses of such medicines act upon an opposite principle, and antagonise or antidote each other. If the fact apply to medicinal relations among each other, the same congruity of relationship must obtain between natural diseases and remedial agents. This relationship will be beneficial or the reverse, as I have observed, according to condition. A person having dined heartily off roast-beef, with cucumbers and cauliflower, is taken, perhaps, some hours thereafter, with diarrhœa and colic. Would Bryonia and Colocynth relieve him? I apprehend not, from the nature of the cause and that of the remedies being TOO NEARLY allied. Pneumonia, in the congestive stage, *may* be arrested in further progress by Aconite, not by virtue of immediate similarity of its operation, but by one precisely the reverse. If the complaint, however, has proceeded beyond this stage, this remedy, according to experience, and conformable to this theory, is not suitable. But, supposing the remedy selected be one which in its pathogenesy bears a very close analogy to the whole course of pneumonia, such as Antimony or Phosphorus, would the disease, in its primary stage, be cut short thereby? I maintain that an aggravation would ensue, in the ratio of the proportion of the pathogenetic element; the least untoward result would be a mere acceleration of the disease process. When disorganization has already taken place, to *assist* the eliminatory progress, by conformity of means, will expedite the cure. The study of medicines in antidotal relations, is calculated to throw the most important light upon the efficiency of remedies in the absolute *cure* of diseases. An attentive survey of what Hering designates the "genus epidemicus," in the *vraisemblable* pictures presented by the remedial pathogenetics, may afford a shadowy prospect—a prophecy "of the main chance of things as yet not come to light." The prevalent scarlatina, succeeded by diphtheria, hooping-cough, and measles, may, through the outlines of their remedial co-relatives, possibly betoken an accession of fever, dysentery, and small-pox.

All this, however, on the mode of action of the remedy, is a digression from the subject,—to return to which, I find I have omitted, in their proper place, the proposition of Dr. Richard Hughes, in the *British Journal of Homœopathy*. He recommends the administration, in alternation, of medicines which have relation to each other and to the diseased structure, the one in the quality of a tissue irritant, and the other by the faculty of cerebro-spinal excitant. In a succeeding paper, however, on the action of Belladonna, these two operatives appear to dispute one another's pedigree, and although considerable ingenuity is displayed in determining their claims, we must await the adjudication of their definite pretensions. Dr. Hale, of America, propounded previously a similar theory, with a somewhat different explanation. Two appropriate medicines are advised in alternation, one in an appreciable and the other in an infinitesimal dose; the weaker one allies itself to the disease, as it were, which together go to the wall, while the stronger one succours the reaction, and the disease is put *hors de combat.*

It is, as I said, by endeavouring to cover the totality of the symptoms, that a disposition to employ more than a single remedy prevails. By confusing the sympathetic symptoms, it may be, with the more important, or by affording these and their trivialities too great a prominency in the analysis, a perplexity is likely to be engendered in the mind of the prescriber, not lessened by the consideration of the emulous claims of half-a-dozen polychrests. Thus: say a patient presents, with frontal headache, furred tongue, and costive bowels; he is also somewhat chilly and flatulent, and if questioned narrowly, admits of dreams and tenderness of his corns. For the headache, &c., Bell. suggests; for the chilliness, Acon. pretends; for the tongue and bowels, Bryon. or Nux put in their claims; while the toes' tenderness, in relation with the flatulence, avouch the merits of Ant. crud. or Lycopod. The prescriber, no doubt, is in somewhat of a quandary: "How happy could he be with either, were t'other dear charmer away." He selects, perhaps, as most important to be looked after, the stomach, and decides on Acon. and Bry. (a very common couple); he disregards, or has forgotten, that these two are set down as antidotes. The patient probably returns to say he is much the same; recourse is then had to Nux and Bry. (Bry. is a favourite, and merits further consideration). The partners, according to Jahr, are incompatible; but the patient has the benefit of the dubiety of Jahr's authority; he may not peradventure have experienced it. Thereupon Ant. crud., Merc., Puls., Lycop., are arrayed in pairs, and if the patient does not return, it is presumed that he is cured, but whether by the result of time and regimen, or the influence of physic, it would be difficult to determine.

But it may be said that the medicines, not being administered at one time, or together, no antagonism or antidotalism can prevail; that the first medicine is given against a particular set of symptoms, while the second brings up a reserve force to pursue the remainder. Assuming that the first was effectual, and the general symptoms have abated, then comes the second, and, by its *rôle* as an antidote, liberates the symptoms in present submission, and the original disturbance is re-inaugurated : or the second lays claim to the honours, which the first in its turn is bound to disparage. It may be argued that the balance having been obtained by the agency of the first, the race being run and the battle over, the second is nowhere; which would doubtless be plausible were the disorder so complaisant, but as the complaint generally endures beyond the term of the dose, the virtue of antagonism holds sway, and the disease proceeds on its course, the head, stomach or toes taking the lead, according to the capacities of the rider in these particular localities: or we have first the disease to which two remedies are in homœopathic *rapport.* The first medicine, if it do its duty, antidotes the disease; then comes forward the second, to antidote the antidote. A sort of triangular duel is hereby established, such as they sometimes have in America; the doctor thinks himself scientific, and the patient is happy by being allowed to recover.

The whole matter, in fine, is encumbered with distractions. It would be well, as a rule, if the practice were generally discountenanced, or if applied at all, it should be with agents which bear a thoroughly general alliance, although the character of each may display particular diversities of symptomatic appetencies. It has been alleged that a disease attended with high sympathetic fever is best treated when the latter has been controlled by the antipyretic Aconite; but I think it is obvious, that if a proper medicine were first selected for the disease, this being sufficiently controlled thereby, the attendant symptomatic fever would necessarily succumb. Dr. Dudgeon says, however, that we are not bound to vindicate the remedy, but to cure the patient. A similar argument was probably maintained by the College of Physicians at the time of the introduction of Jesuits' bark. If the knowledge of specifics is to be advanced, it is certainly not in the direction of the present routine so much in vogue among homœopathists. Allopathy slowly emerges from the obloquy of its complexity of prescription; therapeutics begin to excite the attention which the merits of the subject demand The reformed school would do well to look to its laurels, that it lag not behind in the race of progress which its opposition tended so materially to arouse.

CONTRIBUTIONS TO THE THERAPEUTICS OF PROSOPALGIA.

By Dr. Gustavus Gerson, of Dresden.*

We propose to make this, like former works, a contribution to special therapeutics. The chief criterion of the efficiency of special therapeutics in the sense and the spirit of homœopathy, consists, we believe, in the indication of the characteristics of each remedy, in its specific relation to each form of disease. By many it is alleged that homœopathy has no need of special therapeutics, and that the mere admission of persistent, well defined forms of disease, is not allowable in our system of medicine, seeing that the sole actual characteristic indications of the several remedies is only to be found in the symptoms of the physiological provings of medicines, guided thereto by the law of similars. But how unsuitable this view is for every case, is demonstrated even by those practitioners among us who, under the name of pure Hahnemannists, profess to be guided by symptomatology alone in the treatment of their patients and the choice of their remedies. For even these gentlemen have not disdained to recommend certain medicines in certain forms of disease, such as croup, scarlatina, small-pox, &c., and they have thus proved that, for the very strictest Hahnemannist, special therapeutics are a necessity. We willingly allow that special therapeutics must chiefly be derived from the results of our medicinal provings; still there must not be a mere verbal correspondence of the medicinal and morbid symptoms, but we must be guided by the spirit revealed in them, in a word, by the whole character of the medicine. It is in this sense that we wish the following observations to be judged.

---

* From the *Allg. Hom. Ztg.*, bd. 64, p. 1.

That the paroxysms of pain, scientifically called neuralgia, that occur in certain nerves, with certain sensations, at certain times, from certain external influences, under peculiar constitutional conditions, physiological and pathological, under epidemic influences, &c., do actually exist as independent, well defined forms of disease, will be admitted by every experienced practitioner. At the same time, every practitioner will allow that neuralgias form most especially an object of medical art, seeing that left to nature they are sometimes incurable, and generally only cured after a very long continuance. The pathology of the neuralgias, in the sense of modern exact science, is still very obscure, and all that is known on the subject the author must take for granted is known to his readers, and therefore need not be repeated here. But so much the more important do we deem it to make a careful enumeration of all the circumstances pertaining to the observance and the phenomena attending the occurrence of the neuralgias, for purposes of comparison with the characteristics of the corresponding specific remedies.

In the therapeutic treatment of the neuralgias, homœopathy, in spite of many undeniable deficiencies, has obtained great triumphs. A complete monographic treatise upon the therapeutics of neuralgias, according to the homœopathic principle, would be highly desirable, and tend to advance our system.

The author, whose practice happens to be chiefly among the upper classes of society, among whom neuralgic affections are particularly rife, has enjoyed great opportunities of studying the characteristic peculiarities of the appropriate remedies. But, in order not to overstep the limits of a journal article, we shall confine ourselves in this essay to the enumeration of what we have learned by clinical experience, concerning the specific efficacy of some medicines in the treatment of nervous faceache, or neuralgia facialis, in the widest sense of the term. The choice of the remedy in the treatment of faceache is often very difficult, and only manifold comparative experiments can enable us to attain to certainty in the selection of the right remedy for a given case. We do not pretend that we have investigated the medicines we shall allude to in all their curative relations to neuralgia facialis, still less do we presume to assert that we have experimented with all remedies which are capable of acting as specifics in faceache. But, we can confidently state, that our observations are not compiled out of the Materia Medica, but that they are the result of pure clinical experience. Thus, scanty though the contribution is, it is truly drawn from nature.

We may commence by a few general maxims:—

Prosopalgia seldom occurs as a primary and idiopathic affection, still we have repeatedly observed it as an independent disease in otherwise normally healthy subjects.

Prosopalgia most frequently occurs in dyscrasic subjects, or as an accompaniment and symptom of an acute morbid process, but in most cases it appeals to the intervention of the practitioner as an independent form of disease, whatever relation it may maintain to the chronic or acute morbid process.

The dyscrasias of which prosopalgia is frequently the expression, are, as far as we can judge, particularly the chlorotic, the herpetic, the arthritic, the sycotic (gonorrhœa), and the cancerous. The more acute morbid processes it is connected with are chiefly typhus, measles, influenza, and ague.

Most frequently true prosopalgia presents an intermittent character, with intervals ranging from hours to months, and more or less regular; but, also, not unfrequently as a continuous disease, with remissions and exacerbations.

Intermittent forms may change to continued, and *vice versa.*

The more recent the individual case, the more favourable the prognosis. In general, the prognosis of the non-intermittent form is more favourable than that of the intermittent, but there are exceptions to this rule.

In like manner the prognosis is more favourable for those forms that proceed from, and are connected with, acute morbid processes, but only provided they decline with such affections. As sequelæ of these diseases, prosopalgia is often very stubborn and malignant.

When cancerous or sycotic dyscrasia is the radical ailment, the prognosis is most unfavourable. The prosopalgia of chlorotics is also often very obstinate; but, at the same time, we should state, that prosopalgia, like any other neuralgia, may be itself the cause of the greatest degree of anæmia and cachexia.

The form in which prosopalgia appears is variable.

Prosolpagia has a great tendency to relapse, and the liability of the affected nervous branches remains for a long time.

Anything that acts in a lowering manner on the body or mind will predispose to prosopalgia; hence all losses of fluids, want of nutriment, excessive bodily and mental work, sitting up late at night, attending on the sick, care, sorrow, fear, &c.

Although no age is exempt from prosopalgia, still it is least frequent in childhood and old age.

Much the greatest number of cases of prosopalgia occur in the female sex.

It is not rare that a case of prosopalgia is cured by a single remedy; but, in consequence of the variability of its form, as above mentioned, it often requires the employment of several remedies.

Under the term prosopalgia, we understand not merely the affections of the facial nerve, but those of all the branches of the fifth pair distributed over the face, from the forehead to the chin.

As to the duration of the disease, various periods are required in order to cure prosopalgia, so that we are not in a position to give a mean duration; but we have sometimes succeeded in curing perfectly, in a very short time, cases that have lasted years, and been unsuccessfully treated; and, on the other hand, we have completely failed to cure some cases.

As regards the doses and repetition of the medicines in the treatment of prosopalgia, we have constantly stuck to the dilutions from 1 to 6, and in acute and violent cases have repeated the doses frequently, in chronic cases with few symptoms more rarely.

In the following pages, the author has followed the alphabetical arrangement so generally employed by homœopathists, but should any one think this contribution worthy of a more extended working out, we would beg him to make a more scientific arrangement of the materials.

In conclusion we should state, that in the choice of the remedies we have had less regard to the several symptoms than to the essential nature of the medicines, and we set great value on the indications deduced from this source, and consider them the surest and most excellent guides for treatment.

Arsenicum.—Powerful as is the action of this remedy in the most varied forms of neuralgia, we have but seldom seen certain results from its employment in prosopalgia. The reason of this is that *arsenic* has no great specific affinity for the fifth pair of nerves. Hence, in individual cases of faceache, I have drawn the indications for *arsenic* chiefly from the general pharmacodynamic character of the drug, and from its well-ascertained specific relation to certain morbid processes, and in the absence of positive grounds in the pathogenetic symptoms, I had to infer its applicability from analogy.

I found *arsenic* of use when the facial pains were chiefly in the facial and frontal nerves, of a violent *gnawing*, *drawing*, *tearing* character, and when at their worst, of a *burning* kind. The desperate restlessness and anxiety accompanying the pains so peculiar to *arsenic* must also be present, along with tonic spasms of the facial muscles, and hence distortions of the face during and after the paroxysms. The attacks came on with chilliness, that increased to actual rigor. The exhaustion after the attacks was extreme and long-continued. The patients had a cachectic, puffy appearance, were much emaciated, and had suffered from intermittent or typhus fever, or they showed the marks of herpetic or cancerous dyscrasia. The paroxysms occurred by night as well as in the forenoon. In such cases, when I administered *arsenic*, the prolonged use of the remedy might be necessary, but the cure was permanent.

Belladonna.—It is well known what an injurious misapplication the allopaths have long made of *belladonna* in the treatment of facial neuralgia, and if ever the accusation of medicinal poisoning can with justice be made against the allopaths, this is especially the case with regard to their insane misuse of *belladonna* in the treatment of neuralgias, and particularly of prosopalgia. It is in such cases that the importance and necessity of an accurate knowledge of the characteristics of medicines, of specifics, and hence the great advantage of the homœopathic method, are obvious.

The symptoms that guided the author in his choice of *bella-*

donna in facial neuralgia were the following:—As regards the kind of pains, it is not any very well defined kind that can guide us to the choice of *belladonna,* as the pains it is suitable for are of a variable character, sometimes drawing, tearing, shooting, sometimes burning to such a degree that it feels as if the skin of the face were denuded by a blister, sometimes deeply boring, and sometimes as if the bones of the face would split. In most cases the pains are relieved by pressure of the strongest kind, but in others the slightest touch increases them. In most cases, cold air blowing on the part, or even the application of ice-cold compresses relieves the pain, whilst in other cases warm applications, or even hot poultices, are most grateful. As regards the period of the day, the forenoon and the night are the times when the *belladonna* facial pains are usually at their worst, but they may occur at all periods of the day; and, indeed, the prosopalgias for which *belladonna* is especially suitable are often distinguished by having no complete intermissions, and in resembling inflammatory affections. Thus there is generally an increase of objective and subjective heat, redness of the face, and strong beating of the arteries accompanying the nerve. The pains generally extend to a great distance, though the seat of the disease may be found to be in certain nervous branches, and, as far as my experience goes, it is chiefly in the large branch of the facial nerve that proceeds from the inner border of the ear into the face. The salivary glands, the mucous membrane of the fauces, and especially of the hard palate are often sympathetically irritated. In many cases I found the upper dorsal vertebra very painful; but this spinal irritation appeared to me to be generally of a secondary character. It is, of course, to be expected that, in very sensitive subjects, as in the case of all violent prosopalgias, as also in the prosopalgia of *belladonna,* spasmodic affections will occur, but too much attention should not be bestowed on these in our selection of the remedy.

Although the prosopalgias for which *belladonna* is suited generally occur in full-blooded subjects disposed to congestions, yet I have sometimes cured facial neuralgia in individuals deficient in blood, with this remedy. In persons disposed to erysipelas, and hence during and after scarlatina, *belladonna* has often proved of use in prosopalgia. Occasionally I have found it useful when the patient had ague.

The most striking cure of a facial neuralgia, that had already lasted several years, affecting principally the infraorbital nerves, worse at night, and on the application of external warmth, and by its duration sympathetically affecting the nervous centres, especially the spinal chord, I lately effected by means of the prolonged use of *belladonna*. The patient complained of a sensation of great swelling of the bone of the jaw, of boring, and at the same time bursting pains there, without any particular redness of the face. The patient was never free from pain. No predisposing or maintaining cause could be discovered in the constitution of the robust young lady, nor in any ascertained external influences. My investigations, at last, led me to the discovery of an inflammatory irritation at that part of the jaw where the wisdom tooth was about to come through. My medical studies had already made me acquainted with the fact, that the process of development of these teeth often goes on for years, and sympathetically excites and keeps up the most complicated morbid symptoms. I chose *belladonna* for the chronic inflammation of the alveolar socket, and although the wisdom tooth has not yet come through, the lady has lost her faceache these four months.

BRYONIA.—In but few cases of true prosopalgia have I employed and seen good results from this remedy. Shooting and aching pains in the zygoma, with circumscribed redness and increased heat perceptible to the touch in gouty individuals and wine drinkers. The pains were permanent, but were increased by the action of the wind, and by alcoholic drinks. This is the brief *resumé* of my personal experience of the efficacy of *bryonia* in prosopalgia.

CALCAREA CARBONICA.—This powerful remedy, which is a valuable specific against neuralgias in general, as for example, certain forms of cephalalgia, sciatica, &c., I have found to be an excellent remedy in some few cases of faceache. To the choice of this remedy I was not led by the pathogenetic local symptoms alone. The cases treated and cured by me with *calcarea* were two married women, a girl, and a man. All had a cachectic appearance, and were deficient in blood, in consequence of material losses. The adults had been scrofulous at one time of their lives, the girl was still so. The married women had carried on the nursing of their children a long way beyond their strength, and both had long suffered from galactorrhœa after weaning. The man had long had seminal discharges, and had overstrained his mental faculties. The girl had suffered much from scrofulous blennorrhœas of various mucous membranes, and still suffered from these, especially from ozæna. All were inordinately irritable, of melancholic temperament and equable temper, very sensitive to the open air. The facial pains were seated in the infraorbital region, and also at the point of entrance of the facial nerve. They were dull drawing, as if in the substance of the nerves, like anxiety in the nerves, only slightly burning at the worst of the attack, when a circumscribed redness, hot to the touch, showed itself on the cheek. In all there was slight irritation of the upper dorsal vertebra. The exacerbations occurred always in the latter hours of the forenoon, these were ushered in by chilliness. Nocturnal exacerbations were rare, but there were intervals quite free from pain, and, therefore, these cases belonged to the neuralgias with an intermittent character. The remedy showed its curative influence after a few doses, but it required to be continued for some weeks in order to produce a perfect cure. Doses from the 3rd to the 6th dilution.

These *calcarea* prosopalgias had all been exposed to the iron shots of the allopaths, but none had hit the mark.

CHINA AND CHININUM SULPHURICUM.—While preparing to put in order my comparatively scanty clinical experience respecting the therapeutic efficacy of *China* and its alkaloid in facial neuralgia, the spirit of the therapeutics of the prevailing school rises up before my mind's eye, recalling all the emotions that a retrospect of the therapeutic extravagancies of the physicians of our times must awake in us.

To what category of spirits this ill-omened one belongs I leave to the determination of more knowing ones than I am. But it is certainly a frivolous, feckless, and thoughtless creature, one of the empty wind bags of our time. Certainly no one has the right to demand the deposition of Cinchona Bark and the enthronement of Quinine, on the ground of any comparative physiological and clinical experiments. Messieurs the professors by this act of caprice have merely made a confession of the intellectual ineptitude of the therapeutic authorities of the dominant school. At all events, it matters little to the superficialness and thoughtlessness with which therapeutic indications are now-a-days laid down, whether the question is concerning the total action of a medicinal substance or the partial action of a portion of it. The proper study of medicinal actions is, at all events, quite neglected, and the cardinal categories of medicinal actions which are only dubiously acknowledged, are decried by the professors. Is it not enough to pronounce, regarding Quinine, that it removes the intermittent character of diseases, that it fortifies the blood and the nerves, and above all, that it acts as an astringent on the tissues? Yes, astringent, that is the most peculiar and most important action of Cinchona and its alcaloid, that is the sublimest expression and highest epithet for a grand medicine, and that from a medical school that looks down with pride and contempt on the achievments of former ages, that minutely investigates all the anatomical and chemical alterations of the diseased organism—on the dead subject. But medicinal actions assuredly regard the life, the organic life. This organic life, which is sophistically regarded as a mere mechanical contrivance, according to the axiom *ex morte vita*, must, when it goes wrong, be mechanically corrected, and hence it is quite enough that Cinchona should be a substance with astringent properties. Does not this spirit of the dominant therapeutics remind one of those sinister demons of the middle ages, which weighed like an incubus on all attempts at free investigation in science? And is it not the capricious arrangement of medicines in such categories that gave rise to the accumulation of the trashy load of surrogates which are now-a-days contemptuously rejected?

We know well enough that the therapeutic axioms laid down by the principal clinical authorities of the eighteenth century are not reliable; but, at all events, it should be mentioned to their honour that they first studied, in a rational and diligent manner, the effects of Cinchona, and that their indications for the use of this remedy exhibit the subtlest observation and the acutest ratiocination. They, worthy high priests of Æsculapius, lived and wrought in full consciousness of the chief aim of the physician, which should be—the cure of diseases. No doubt, in conformity with the prejudices of the times, they generally administered Cinchona in complex mixtures, but still they regarded the medicine as a unity, and as such they were thoroughly well acquainted with it in their own fashion. But they did not know, as the clinical heroes of to-day do, that a constituent part of it, its alcaloid Quinine, is well adapted for administration in natty little powders, in a form in which a concession is made to that desire for the smallest doses of medicine which homœopathy has excited among the public; yes, in a form which allows the practitioner, when his patient expresses a desire for homœopathic treatment, to whisper in his ear, that the powder really contains only a homœopathic dose!

What a difference there is between the method pursued by the homœopathist in ascertaining the indications for Cinchona and that of the therapeutic authorities of the dominant school! How constantly and perseveringly must we study and pore over the list of Cinchona symptoms, which still seem to us so imperfect and defective, in order to draw from it new treasures, new acquisitions for our therapeutics! Must we not appear like fools, deluded by some trickish sprite of the mountains, who see precious metals sparkling where the unprejudiced masters of modern physic seek and find nothing more than the tanner extracts from his bark? Truly it requires a manly, noble devotion to his calling, and an enduring enthusiasm for the truth, to persevere and not to weary in a work such as the homœopathist's is. Happy we, if we suceeed in finding an immediate reward in the results of our labour, and if we continue to progress in the light of truth. For the judgment of history, that weighs and pronounces its verdict respecting merit and truth, is not seated *ex permanence*, nor do all events come under its ken. But the great statistical experiment in the number of deaths remains pretty much the same whether Cinchona be given to patients according to its homœopathic indications, or, unthinkingly, as a tonic and astringent remedy in the form of its alcaloid! And we live in the days when statistics are all powerful, and the truth is least perceived when the strength of therapeutic knowledge lies in negation. I must apologise for this polemical digression, which seems rather uncalled for. But how is it possible to prevent an explosion when opportunity, acting as accident, throws a spark upon the over abundant combustibles?

The pathogenetic local affections of *China* are not very well marked; hence, for very intense idiopathic prosopalgias, this medicine can scarcely pretend to be a *specificum simillimum.* It is mostly constitutional affections, profound alterations of the blood, diseases of nutrition, for which *China* is the remedy. Hence the local affections, and, therefore, also the neuralgias, those caused by *China* as well as those for which it is therapeutically indicated, are only such as can be properly said to be dependent on a constitutional affection. It must, moreover, be candidly confessed, that Hahnemann's proving of *China* does not consist entirely of the results of pure physiological experimentation, but it contains a large admixture of citations from the works of those authors whose labours I have above thankfully acknowledged. The more such anomalies exist in our codex of symptoms, the more difficult does it become to ascertain the strictly homœopathic indications for the several medicines, and the more frequently are we compelled to form our conclusions *per inductionem et analogiam.* Thus much I have found to be the result of my studies, that the fundamental character of the China disease is one of *irritable debility,* and as the neuralgias usually have this for their source, it follows that *China* must be the appropriate remedy for characteristic cases of prosopalgia.

I have found *China* serviceable in the faceaches of chlorotic, anæmic, leucophlegmatic, scrofulous subjects, and sometimes also in those of arthritic patients. It was generally indicated by the existing constitutional affection, by anæmia, hydræmia, scrofula. When I found China-prosopalgia, the existence of habitual disposition to neuralgias could generally be discovered.

Hence, I cannot claim for the cases of prosopalgia I have cured by *China* anything but a symptomatic character.

My China-prosopalgias had generally their seat in the smaller and middle-sized nervous twigs, in branches of the nasal, frontal, and maxillary nerves, they often changed about from one branch to another. The characteristic form of the pains were dull, aching, drawing, jerking, cutting, usually leaving behind great numbness. The pains had certainly more violent paroxysms, especially after dinner, and in the first hour of the night, but they did not show well defined intermissions, as is the case with some other medicines. The extraordinary agitation which accompanied the local and proportionately circumscribed affection, compelled the patient to a frequent change of position, in the night to covering himself all over with the bed-clothes, and then suddenly throwing them all off again. In one and the same attack, heat and cold would cause short remissions—pressure made no alteration: frequent jerking and twitching of single muscular fibres, visible pulsation of small arteries, rapid variation of the complexion, and partial variability of the temperature, perceptible to the touch. When the pain occurred near the eye, flow of tears—when near the maxillary nerves, flow of saliva and thirst. The fits lingered on for many hours, the pain varying all the time in severity. A characteristic feature of the pain seemed to me that it did not radiate, as is the case in many other forms of prosopalgia. The subsequent exhaustion was very great, the patients being generally of low vital powers. The mental disposition during the fits was desponding, whining, but, in general, cross, irritable, pusillanimous. I was particularly struck with the number of cases in chlorotic and scrofulous girls, about the age of puberty, and in young onanists, whose complete cure was effected by *China*. The cases I have mentioned as occurring in arthritic subjects were only two in number, and they were suffering from atonic gout and dropsy. I should also mention some cures in patients affected with mercurial cachexia, and I may state, that I have found *China*, as a rule, one of the best antidotes to mercurial poisoning.

As regards *chininum sulphuricum*, I must confess that I have made but very few applications of this remedy according to homœopathic indications in the treatment of prosopalgia, and hence I am unable to point out its therapeutic characteristics for this disease; but in those cases where I have made an empirical use of *quinine*, in some violent cases of faceache, I have generally failed to attain my object, and, to my confusion, have sometimes only effected a severe aggravation of the pains.

Although it is not in the alphabetical order, still I think this is an appropriate place to say what I have to say about *iron*. Unfortunately, the provings of the remedy are so imperfect and scanty that they do not allow us to draw any positive indications from them for prosopalgias. When I have given this remedy, experimentally, in a homœopathic dose, on mere general principles, in anæmia and scrofulous faceaches, I have never been able to do any good. But, I must not omit to mention that, in my youth, at the dispensary, and also at the commencement of my private practice, I observed very marked curative results from the employment of minute doses of *ferrum carbonicum* in some cases of prosopalgia, in women who had become anæmic from galactorrhœa.

COCCULUS.—This remedy is one of the real jewels of our medicinal treasury, it is a brilliant of the purest water, transparent, clear. Its study causes intense inward satisfaction, and allows us to feel quite at home within a limited vital circle; hence, also, the indications for this remedy may be discovered with great certainty.

I have found *cocculus* indicated, and administered it in but few cases of prosopalgia; but these cases were highly developed, idiopathic, and generally deeply seated forms, that had lasted for years. They occurred in ladies of the upper ranks, of ages varying from 30 to 40 years. The patients besides suffering from abdominal plethora, had extreme irritability of the nervous system, especially of the spinal chord; they had been more or less mistreated with mineral waters and thermal baths; they suffered much from a collection of wind in the epigastrium, from acidity, obstinate constipation, and diarrhœa, from menstrual colic, and bland, thick leucorrhœa. Some of them had formerly suffered much from neuralgia of the sciatic or brachial nerve; in all there was spinal irritation, with *nocturnal boring* pains. Of choleric temperament, the patients, through their long continued sufferings had been brought into a state of desperation, constantly changing, and that quickly, from pusillanimity and despondency to outrageous gaiety. They had not lost much in flesh, but their complexion was pale, their expression was somewhat distraught, and in one patient a permanent distortion was perceptible.

The attacks proper regularly came on in my patients in the afternoon, and in one case only did a second paroxysm occur about midnight. Some hours before the occurrence of the paroxysm, the disposition became irritable, there was prostration, yawning, chilliness, coldness of feet; then followed a violent jerk in the affected nerve, in my cases in the pes anserinus or the temporal. Boring, stitching, crushing, lancinating pains in the jaws, drawing, jerking, in the sympathetically affected nerves; these radiations extended very far, as far as the finger points. In one case, chilly feeling through the teeth, and fine drawing in the borders of the teeth, trembling throughout the body, spasms in the throat, diuresis, cold, perceptible to the touch in the distorted face; loud cries of despair, and irritation, alternated with the characteristic *cocculus* stupefaction of the brain. The attacks lasted from four to six hours, and even after the cessation of the prosopalgia the cerebral stupefaction with delirium lasted till late at night. In the period of remission, during the day, the facial nerves were quite free from pain, but the sympathetic affections in other nerves, as, for instance, the paralysed feeling in the arm of the same side, and the drawing in the dental nerves continued. In the case I have here described I soon came to discover the indications for *cocculus*, and, therefore, I rapidly hit the mark, and when slight relapses subsequently showed themselves, they yielded readily to a few additional doses.

In my descriptions, I have purposely avoided making an artistic arrangement of my observations, and I have preferred giving my impressions just as they occurred to me. The enlightened reader will know how to construct the characteristic picture out of the raw material.

COLOCYNTHIS.—I have repeatedly proved the efficacy of this remedy in a peculiar form of neuralgia of the small branches of the infraorbital nerves, which I have found quite characteristically in several plethoric, choleric, irritable men, from 40 to 50 years of age; these patients were disposed to hæmorrhoidal and gouty affections, and to congestions towards the head: the most frequent cause was vexation, but sometimes also too close application to business; but once produced, this neuralgia was apt to recur many days successively, at the same hour in the forenoon.

After feeling of heat in the face and forehead, there occurred, in a small circumscribed spot, below the lower eyelid, an extremely tiresome, aching, pinching pain, which produced twitching in the lower lid, dazzling before the eyes, and *diplopia.* The fits often lasted several hours, and left behind dull frontal headache; *colocynth* prevented the recurrence, and cut short the attacks very quickly.

IGNATIA AMARA.—*Our* Ignatia! ours, wholly and solely! Set aside, turned out of the allopath's pharmacopœia and therapeutics, by the paternal decree of the great dons of modern pharmacology, whose profound school-learning warns them against the medicinal use of *ignatia,* because this substance shows a larger proportion of brucine in its composition than nux vomica, whence it must follow that *ignatia* must be a much more powerful poison than nux vomica, and as it is a well known maxim among all children's friends, that children should not play with fire, edged tools, or poisons, so it is right and consistent to proscribe *ignatia;* for those who cannot refrain from playing with brucine have a less dangerous poison in nux vomica. Such is the sublime reasoning of the pharmacologists. We can fairly certify of them that the friends of children could not teach anything more childish! So, once more, and with increased emphasis, I designate *ignatia* OUR *ignatia.* For truly this medicine is a sign and symbol of homœopathy; the history of *ignatia* is a miniature picture of the history of homœopathy itself. All the advantages and virtues, all the victories and conquests of homœopathy are unmistakeably recognisable in sharp concentrated characteristic lines in the history of *ignatia*, such as homœopathic clinical experience exhibits it; but, at the same time, all the errors, faults, defects, and deformities! We know no other proved medicinal substance, whose indications are shown with greater pregnancy and plasticity, none with which more positive real cures have been effected; but no other homœopathic remedy has been so abused by the faith of lay practitioners of homœopathy, no other has been so much punished for the hysterical petulance of homœopathic practitioners as *ignatia!* Breathes there a hysterical girl, or *blasé* swell, who has not learned from some medical friend that, for the disagreeable effects of every kind of mental emotion, they have only to swallow, in full faith, a globule of the 30th dilution of *ignatia*, or, still better, daintily to sniff up their delicate nose, the wondrous aroma that is inexhaustibly given off by the mysterious globule lying *perdu* at the bottom of a vial. All that, in the course of time, has occurred to reduce homœopathic practice to a mere dead, weakly inanity, to a mere routine practice, to a system of verbal correspondences, may be clearly and legibly read in the history of *ignatia*.

These circumstances, however, will never diminish either the real importance of *ignatia* as a remedy, or the merits of its incomparable proving; on the contrary, it is an infallible sign of its great, true, and admirable character, that fools and shallow pates give themselves such pains to disguise and misrepresent it.

We are not in the habit of judging of medicinal effects by weight and measure, and when I am asked by those colleagues who practise homœopathy in the meantime, because it pays pretty well, but who, in their hearts, and also in their dubious behaviour, are attached to so-called progressive science, when I am asked by such as these "if the cases of prosopalgia which I have treated and cured by homœopathy belonged to the idiopathic intense sort, depending on a distinct affection of the nerves?" I certainly could not reply decidedly in the affirmative.

The cases of prosopalgia I have cured with *ignatia*, by no means few in number, were generally of symptomatic character. But among them were some cases which occurred in regular paroxysms and shewed an idiopathic persistency. Though most of my cases were in women of the upper ranks, delicate, soft-fibred, anæmic, nervous, of melancholy or melancholic-sanguineous temperament, yet some were persons full-blooded, or with an abnormal condition of the blood, such as gouty and hæmorrhoidal subjects. Excessive sensitiveness, hyperæsthesia of the nerves, marked impressionability and variability of the disposition were shown by most of the patients, and all had more or less suffered from those trials and shocks to the heart and mind with which Providence afflicts poor mortals, or which they furnish for themselves.

Moreover, the greater number showed, more or less, well-marked spinal irritation, the origin of which could be traced to positive or relative excessive solicitation of the sexual functions, in the most extended sense of the term, or as in the case of some musical *virtuosi*, to inordinate mechanical irritation of the spinal nerves, combined with the debilitating action of going too much to evening parties. Curiously enough I have repeatedly removed, by *ignatia*, prosopalgias that were undoubtedly owing to the presence of ascarides. It was extremely interesting to me to observe that the *ignatia* prosopalgias often alternated with neuralgias and hyperæsthesias of other parts, some examples of which will be given below.

In the pure arthritic form, *ignatia* was given in two cases. I repeatedly observed the *ignatia* prosopalgia in the course of typhus and miliary fevers, and, if I remember right, also in some *roués* during the prolonged course of gonorrhœa.

As before said, I have cured, with *ignatia*, but few cases of what I believed to be deeply rooted idiopathic prosopalgia; they were generally intermittent affections in the course of other diseases of a temporary and vicarious character, and particularly regularly recurring cases, dependent on certain well known influences; but, wherever I found *ignatia* indicated, according to the criteria I have given, its employment was followed by evident curative action, in the symptomatic forms rapid, in the idiopathic gradual. The sage dictum of modern wisdom, that the symptomatic forms would have ceased spontaneously, cannot detract an iota from the value of my observations, for my patients, who had long been used to the attacks, thankfully acknowledged and lauded the curative power of the remedy, and I flatter myself that I possess some little ability and impartiality in the observation and estimation of positive medicinal effects. Moreover, it so happened, that frequently the existing and maintaining causes, as, for instance, prolonged nursing, pollutions, musical excesses, &c., could not be removed, whereas the prosopalgias were permanently cured by *ignatia.* Most of the cases, too, were by no means of an ephemeral character, and this remark brings me to the subject of the duration of these *ignatia* prosopalgias. Seldom had my cases lasted for weeks, but yet the tendency to the attacks was often of many years' duration. Thus, some were women who always suffered from faceache during their pregnancy, or the paroxysms had the peculiarity of occurring for a series of successive days, in a regular or irregular manner, completely unaffected by the action of all sorts of palliatives; some of the cases occurred regularly, owing to some known cause, but needed two to five days for their subsidence.

The *ignatia* prosopalgia often comes on suddenly, without any warning, or it is preceded by slight premonitory symptoms, such as bruised feeling, tension, twitching in the face.

The duration of a paroxysm is very various, sometimes the only cessation during a whole day consists in a few hours passed in uneasy sleep. Sometimes the attack commences on first waking in the morning, and is ended often from four to eight hours, or sometimes it begins about noon, only terminating late in the evening, or its occurrence is confined to the night: besides the frequently long intermissions in the periodical cases, the remissions in other cases vary very much.

The exciting causes of these prosopalgias were chiefly mental emotions, but they were sometimes excesses in mental work, in musical performances, in venere, and in baccho. Suppressed perspiration, blennorrhœa, and hemorrhoidal fluxes, were frequently the remote cause of facial neuralgia.

The seat of *ignatia* prosopalgia is, as far as I can make out, generally in the smaller twigs of the facial nerves, seldom in the larger branches; generally it is single small branches of the infraorbital, supraorbital, nasal, and labial nerves that are attacked, and that in very well marked limits, seldom extending into any other region, and having no tendency to radiation. The attacks by day are preceded by uneasy sleep, wakening with a bruised feeling, pandiculations and ill-humour.

The kind of pains:—boring, dart-like shoots, giving quite a shock, dull, drawing, twisting, formication. Seldom do the pains attain such a height as to cause the patient to toss about in despair, as happens in some other prosopalgias; on the contrary, the pains are borne in dull resignation, and the patient lies quietly.

Concomitant circumstances:—partial convulsions of the facial muscles, trismus, the branches of the maxillary nerve were particularly affected, paleness, and coolness of the face, lachrymation and photophobia, spasms in the cheek, yawning, shuddering, diuresis, urinary tenesmus, pulse quickened, small, cutaneous temperature cool; quiet weeping, pusillanimity. Patients of a heroic character were able even to go about their business, or their pleasure, during the pains.

In reference to the above-mentioned alternation of the prosopalgia with other affections, I may briefly relate some examples.

A plethoric lady, who, when 35 years of age, had already borne and nursed 11 children, suffered occasionally, and especially some days before the catamenial period, from enormous diuresis, which was diagnosed by some Parisian doctors to be hydrometra, but Scanzoni more correctly pronounced it to be hyperæthesia of the kidneys. At first, under my treatment, as soon as the enormous diuresis was rapidly removed by pulsatilla, the following day a regular attack of prosopalgia came on, which yielded readily to *ignatia*. Now the patient has been free from both affections for eight months.

Another very delicate lady, who, like many of her countrywomen, had had children in rapid succession, and had nursed them for a full year, suffered from extreme lancinating uterine pains (a small indurated spot was observable in the neck of the displaced uterus) which, as soon as they were removed by arsenic, regularly changed into a prosopalgia, which in its turn readily yielded to *ignatia*.

A person, affected with hæmorrhoids, 40 years old, who had a fissure, had frequent attacks of proctalgia. Every time this was removed by nitric acid, prosopalgia occurred, and *ignatia* never failed to cure it rapidly.

PLATINA.—This remedy, which has much in the character of its action analogous to Ignatia, differs from the latter in this unhappy way, that its proving is much more imperfect; and, to my knowledge, the best qualities of this remedy known to the practitioner are not indicated in the Materia Medica. Thus, I have seen the most brilliant cures effected by *platina* in two most violent cases of prosopalgia. The cases occurred in childless married women, who suffered habitually from profuse menstruation, uterine spasms, headache, palpitation of the heart, variable humour and megrims. They were not anæmic. The paroxysms which occurred in the forenoon attacked the pes anserinus; the pains were pinching, boring, burning; the facial muscles were horribly distorted; trismus was present; the face was hot, dark red; there was great lachrymation and ptyalism, convulsions of the upper extremities, and of the pectoral muscles; loud crying, insane tossing about and striking out on all sides of them. In the several paroxysms there were but short remissions, during which the patient sat wrapped up in herself: duration of the paroxysms from six to ten hours. *Platina* cured permanently.

(To be continued).

MEDICAL TERRORISM.

By WILLIAM BAYES, M.D.

> "This trades-union persecution is very contemptible, and can lead to no good."—*Letter from a London Hospital Surgeon of eminence.*

THE public are greatly and immediately interested in checking all attempts at undue interference with the mutual relations between employer and employed. If a man chooses *to refuse* to work, *except under certain conditions*, the freedom of the subject upholds him in his right to refuse; but, if he advances the further claim to the right to *compel others to refuse* who have not the same objection as himself, then he is committing an unlawful act, and is using his *own liberty* as an occasion *to tyrannise* over others. The present claims of the British Medical Association to dictate to the profession what it may, and what it may not do, is an illustration of how greatly *liberty* may be thus prostituted to the worst forms of *tyranny*.

This Association, in the year 1851, met at Brighton, and framed a series of *resolutions against homœopathy*, ordering the expulsion from the Association of homœopaths, of physicians and surgeons partially practising homœopathy, and of physicians and surgeons who met either of the above classes in consultation. Though illiberal, the Society had an undoubted right to frame these, or any other rules which should meet the wishes of the majority of the members present; but, after some years, finding that homœopathy still continued to rise and spread, in spite of the " rules " against it, the British Medical Association lay claim to the further right of forbidding others, not members of their Society, from meeting with physicians and surgeons practising homœopathy; holding up to them *in terrorem* the active hostility of the whole Association, if they dared to set its veto at defiance. This active hostility took the practical form of threatening to withdraw consultation practice from the recalcitranst, and of opposing their election to any post of honour or trust.

In 1858, this new policy was brought to bear against Mr. Fergusson, who was forced to yield to this *tyrannous trades-unionism*, and, in 1862, it has been similarly brought to bear against Mr. Adams. The following is a relation of the facts which led to the latter attack.

A few weeks since, I desired to obtain a first-rate surgical opinion upon a case under my care. The leading local surgeons had, on former occasions, refused to meet me, I, therefore, did not again seek their aid, but wrote to my friend, Mr. William Adams (of the Orthopædic and Great Northern Hospitals), who very promptly and kindly responded to my call.

There was no ***medical*** question involved in the consultation, the point under discussion being one of a purely ***surgical*** nature.

Some weeks after this consultation, Mr. Adams received a letter from Mr. Helm, a young surgeon of this town, and still an under-graduate of the university. To this letter, Mr. Adams replied, it led also to others, and, finally, Mr. Helm published the whole correspondence in the ***British Medical Journal,*** of May 24th. In the same number of the ***Journal,*** there appeared a leading article, in the usual style of inveterate and undying hostility to homœopathy, blaming Mr. Adams severely, because he would not consent to join the surgeons of this town in refusing to meet me.

With these few remarks, I will lay before you the correspondence and leading article referred to, as well as some other papers bearing on the subject under discussion.

MEDICAL CONSULTATIONS WITH HOMŒOPATHS.

[The following correspondence has been forwarded to us for publication;—]

1.—*Letter from G. F. Helm, Esq.*

2, King's Parade, Cambridge, May 3rd, 1862.

DEAR SIR,—I wish to call your attention to the following report just now current amongst some members of our profession in Cambridge. The report is as follows:—

A homœopathic practitioner here, being in difficulties during the treatment of a surgical case, was compelled, a few weeks since, in consequence of the repeated refusals of the surgeons in this town to give any countenance to the homœopathic imposition, to seek the assistance of a London surgeon; and, according to the words of a near relative of the patient, 'Mr. Adams, the great club foot man, came and gave his advice.'

I conclude, from your connection with the Orthopædic Hospital, and from your numerous writings on club-foot, that this statement applies to yourself. I shall, however, be very glad to receive from you a denial of this report; for, until some contradiction of it is put forth, I fear we must attribute to you a support of homœopaths, which the Cambridge surgeons refuse to give; particularly as this is not the first occasion on which *a* Mr. Adams is reported to have come to the assistance of the homœopaths here.

I am, dear sir, faithfully yours,

W. Adams, Esq. GEORGE F. HELM.

2.—*Letter from William Adams, Esq.*

5, Henrietta St., Cavendish Sq., W., May 5, 1862.

DEAR SIR,—On the 5th of April, I went down to Cambridge, at the request of Dr. Bayes, to see a patient who was then under his care, and supposed to require a surgical operation. It was not for the purpose of any consultation to decide upon the treatment to be adopted; but if I considered an operation necessary, the patient would at once be placed under my care, and for this purpose removed to town. I found that it was not necessary to perform any operation at the present time; and, therefore, left the patient without expressing any opinion as to the medical treatment adopted in this case, about which I was not asked. There was not the least necessity for any consultation; neither was any consultation held. The sole question which Dr. Bayes wished me to determine was, whether at that time the performance of an operation would afford relief to his patient; and if so, whether I would take the case under my care for this purpose.

In reference to the general question of consultations with homœopathic practitioners, I may state that I hold it utterly impossible that any such consultations can be held; as our practice can never be based upon the same principles, and there can be nothing in common between us; but, in my opinion, to have a case placed wholly and entirely under your care by a homœopathic practitioner, is a very different thing to meeting him in consultation, to determine the treatment to be adopted; and in such cases, the patients readily submit to take the ordinary medicines and doses of our recognised practice whilst under surgical treatment; though, perhaps, afterwards they may return to their homœopathic ideas. I may very safely say that neither in London nor elsewhere have I ever held a consultation, or treated a case in conjunction with any homœopathic practitioner.

With regard to Dr. Bayes, who, I believe, is now considered to be a homœopathic practitioner, I may add that I have been intimately acquainted with him as a personal friend for about fifteen years, and with his wife's family for a much longer period. I knew him first when he was an allopathic practitioner, in good general practice, in the neighbourhood of London, and afterwards at Brighton, where he practised as a physician, and was attached for some years to the Brighton Dispensary. His health obliged him to travel; and, I believe, after his return from the continent, his views in medicine had a homœopathic tendency, and he afterwards settled in Cambridge, where I have occasionally visited him as a friend; and, on the occasion alluded to, Mrs. Adams accompanied me on a visit to Mrs. Bayes for a few days.

Of course, a change of medical opinions ought not to be allowed to interfere with private and family friendship; and Dr. Bayes would have too much good sense and gentlemanly feeling to place any friend in a false position with regard to consultations.

Very faithfully yours,

G. F. Helm, Esq. WM. ADAMS.

3.—*Letter from G. F. Helm, Esq.*

2, King's Parade, Cambridge, May 9th, 1862.

DEAR SIR,—I must thank you for your very candid letter of May 5th; but as I am in danger of misunderstanding some of its contents, I shall be much obliged to you if you will inform me whether you examined the patient referred to in our letter in company with Dr. Bayes; *i.e.*, was Dr. Bayes in the room at the time that the surgical examination was made?

An answer to this question will enable me to understand your explanation more thoroughly.

I am, dear sir, faithfully yours,

G. F. Helm, Esq. GEORGE F. HELM.

3.—*Letter from Wm. Adams, Esq.*

5, Henrietta St., Cavendish Sq., W., May 12, 1862.

DEAR SIR,—I should have replied to your note earlier, but was absent from town, and returned from St. Leonards only this morning.

With regard to the question, whether Dr. Bayes was in the room at the time I made the surgical examination of the patient at Cambridge, I have no hesitation in saying that he was in the room at the time. Although, in deference to extreme opinions on this point, it might have been as well to have avoided his presence on the occasion, to which my friend, Dr. Bayes, would very readily have consented; yet, conscientiously, I could not feel that any objection ought to be taken to it, as the object was merely to hand the case wholly and entirely over to my care, if I thought an operation would be of any service to the patient. The medical treatment of the case was never touched upon; neither do I know what medicines had been given.

The distinction between receiving a patient from a homœopath—all homœopathic attendance and treatment ceasing from that moment—and continuing to attend a patient conjointly with a homœopath, is so broad, and the circumstances so dissimilar, that they cannot be confounded when any spirit of justice prevails.

I do not believe that any surgeon in London would refuse to receive a patient from a homœopath, either sent by letter, or by personal introduction; nor do I believe, whatever may have been done in past times, that any surgeon of repute would attend a patient conjointly with a homœopathic practitioner; indeed, I have never been asked to attend a patient conjointly with a homœopath; but, as I remarked in my former letter, when surgery becomes necessary, the patients readily give up homœopathy, and submit to our ordinary allopathic treatment, and afterwards return to homœopathy.

Very truly yours,

G. F. Helm, Esq. Wm. Adams.

5.—*Letter from George F. Helm, Esq.*

2, King's Parade, Cambridge, May 15th, 1862.

Dear Sir,—The distinctions which you try to draw in your two letters now before me, between holding consultations with homœopaths, and examining patients in the presence of such persons, are so extremely minute as to be quite unintelligible to my mind; for, if after going into the country at the request of a homœopath, the surgeon is introduced to the patient's room by him, and examines the patient in *his presence*, then I consider, and I think the majority of the profession will concur with me, that a consultation has been held; and this undoubtedly is the impression which such an interview leaves in the mind of the patient and his friends. I cannot, therefore, consider your explanations as in any way contradicting the reports to which I have drawn your attention: you have done what the Cambridge surgeons have, from a sense of professional honour, repeatedly refused to do; and, therefore, I cannot but attribute to you a support of homœopathy which they refuse to give.

I have not discussed your letters in detail, as it is my wish, with your permission, to bring them to the notice of the profession at large, through the medium of the *British Medical Journal,* where your conduct in this matter will be discussed, and verdicts given—possibly of approval—but most likely in accordance with the very strong opinions which I entertain on the subject.

I am, dear sir, faithfully yours,

GEORGE F. HELM.

6.—*Letter from Wm. Adams, Esq.*

5, Henrietta St., Cavendish Sq., W., May 16, 1862.

DEAR SIR,—Although my letters were not written with any view to their publication, and matters of a private nature were alluded *to,* still essentially they contain my own opinions and conviction in relation to the matter discussed, and you are quite at liberty to publish them.

The distinction which I draw between attending patients conjointly with homœopaths, and receiving patients for surgical treatment from homœopaths—homœopathy ceasing from that time—must, I feel assured, be recognised and acted upon in practice by all consulting surgeons.

Very faithfully yours,

G. F. Helm, Esq. WM. ADAMS.

On reading over the above correspondence, one can but confess to some degree of astonishment, at the coolly dictatorial manner, in which a young, untried man, still "*in statu pupillari,*" intrudes his budding ethical idea upon one who has already won high professional position, and a name and reputation as an accomplished pathologist, a skilful and inventive operator, and an excellent teacher of his art in a metropolitan medical school. Looked at from this point of view, letters 1, 3, and 5 bear the aspect of an *impertinence,* and I am not surprised to hear that they are regarded in this light, by the real heads of the profession, the Hospital Surgeons of London.

But not so do they appear to the Editor of the "British Medical Journal." With the true Milesian spirit, he grasps the hand of the boy that raises the shout for the fight, and rushes down to the battle with these words :—

British Medical Journal, Saturday, May 24th, 1862.

"MEDICAL CONSULTATIONS WITH HOMŒOPATHS.

"We much regret to find that we have again to call the attention of our readers to the subject of medical consultations with homœopaths. At another page will be found a correspondence on this topic, which has been forwarded to us for publication, between Mr. Adams of the Orthopædic Hospital and Mr. Helm of Cambridge.

"There lives, it appears, at Cambridge a homœopath, with whom, most properly, the medical gentlemen of that town refuse to hold any kind of professional intercourse. The homœopath, therefore, has to cast abroad for assistance when he requires it; and, in the present case, looking to the metropolis, invites Mr. Adams to his assistance. Mr. Adams accepts the invitation, which comprises simply the demand that Mr. Adams is solely to examine the patient, and to decide whether or not an operation is requisite; if the operation be requisite, then the patient is to be delivered over into the entire charge of Mr. Adams. Mr. Adams and the homœopath eventually do meet; and the decision arrived at by the two, or by Mr. Adams alone, is, that no operation is required. Mr. Adams therefore retires, and the homœopath is left in undoubted possession —we may say, complete master of the situation.

"Now this conference, Mr. Adams says, is not a consultation with a homœopath. We entirely differ in opinion from Mr. Adams in this; and we are certain that the profession does likewise. Indeed, after the clear and unmistakable position which the profession has, we may say, unanimously assumed on this subject, we are surprised to find that any medical man could have doubts as to the right line of conduct which he should pursue in such a case. It is as clear to us as plain sense can make it, that the practice assumed and defended by Mr. Adams is a direct encouragement of the deception of homœopathy; and we are satisfied that a due reconsideration of the point will force upon Mr. Adams himself that the line of conduct which he has chalked out is in a false direction.

"The question to be answered is plainly this: Does or does not the meeting with a homœopath, under the conditions described by Mr. Adams (and it is mere trifling with common sense to say that such a meeting is not a consultation), encourage homœopathy and its practitioners? To this question there can be but one answer: It does encourage the thing, and the men who practise it. This is what you thereby do, you publicly in the face of the public—silently and tacitly admit that homœopathic treatment is what a patient may innocently submit to. It is vain to say that no question of homœopathy comes up at the conference; your silence is eloquent in its favour. If homœopathy be a quackery, you tacitly foster the quackery; you enter no protest against the treatment which the patient had undergone before you visited him; you enter no protest against the treatment which the patient may undergo when you leave him. You quietly look on, and, though urgent medical aid may be required for the patient's cure, though accidents may arise in the progress of his complaint which may demand medical treatment—nay, knowing that contingencies may spring out of his sick condition in which the patient's very life may be positively sacrificed if medical treatment be not, and if homœopathic folly be, adopted—you remain silent. It is no concern of yours, you say, if the man is silly enough to subject himself to such a treatment; let him pay the penalty of his folly.

"It is useless to pretend the contrary. Meetings of this kind with homœopaths, are, in the eyes of the patient, whatever they may be in the eyes of the surgeon, a distinct recognition both of homœopathy and of the homœopath. We would go further; and we will assert that the surgeon is, under such circumstances, responsible for any injury which may thereafter happen to the patient through want of proper medical treatment. In fact, is it not as clear as the day, that the patient suffering under such injury may afterwards, with perfect justice, turn round on the surgeon and accuse him of having silently looked on, and never warned him against the possible contingency. What would the surgeon answer when thus accused by the patient? 'You never told me that my life might be sacrificed; you never said that you knew homœopathy to be a deceit and snare. It is true I never asked you the question; but what right had you, with your better knowledge to witness tacitly my blind delusion, to give me no word of warning. Nay, am I to believe that you would have come at the call of the homœopath, when other surgeons had refused to do so, if you really believed the thing was an injury to me; that you would have left me in his hands practising injuriously upon my body.'

" These are to our view, the unanswerable objections which must be taken to Mr. Adams' position in this matter. A medical man has no right, under any circumstances whatever, to attend the call of a homœopath, or knowingly to meet him at the bedside of the sick.

" But we may go a step further in the special case of Mr. Adams, and say that, by his proceeding, he has distinctly recognised the claims of homœopathy to be ranked on the same footing with medicine. This was the compact with the Cambridge homœopath: If an operation, which we presume Mr. Adams was to perform, were proper, the patient was to be placed under Mr. Adams's care; if the operation were not proper or not required, the patient was to continue under the homœopathic treatment. We cannot see how Mr. Adams can say that this agreement does not distinctly mean that—but for the accident of an operation—homœopathic treatment was quite as good for the patient as ordinary medical treatment; or how, under such circumstances, any other inference could be drawn than that the merits of homœopathy and of legitimate medicine are equal, and that these two forms of treating disease may be substituted one for the other according to the judgment of the practitioner or the fancy of the patient.

" The surgeons of Cambridge, in the course they have taken, have a right to the support of the profession. They have acted an honourable part—they have refused to do what Mr. Adams has done."

In this leading article there are four points to which I would direct the attention of the profession.

Firstly—The assumption that the practice of homœopathy, by a legally qualified medical man, is so grave an offence, that it necessarily casts him out from the pale of the profession.

Secondly—The assertion that a man, so practising, is a "*homœopath*," i.e., a " medical sectarian," with whom " most properly" the orthodox " refuse to hold professional intercourse."

Thirdly—The assertion that Mr. Adams, in meeting me, committed a professional fault, and that "*a medical man has no right, under any circumstances whatever, to attend the call of a homœopath, or knowingly to meet him at the bedside of the sick.*"

Fourthly—The assumption of the power to dictate to Mr. Adams what his course shall be—being a direct interference with the right of private judgment.

To these four assertions I answer, firstly—That the law distinctly provides for the *freedom* of medical opinion, and protects the developments of science from the cramping effects of penal bye-laws, or other prohibitive enactments, on the part of the Colleges or Universities. I therefore say that to exercise the *liberty* which the *law* expressly provides for me (see clause 23 of the New Medical Act) cannot be an offence against my profession.

Secondly—I deny that a man who adopts homœopathic practice, necessarily becomes a *homœopath,* i.e., a *medical sectarian.* He still remains a physician or a surgeon, and ought no more to be called a homœopath, than a man who adopts the late Dr. Todd's principles ought to be called a "stimulator."

Thirdly—I hold that Mr. Adams could not have refused to meet me, without at the same time behaving with want of professional courtesy. Mr. Adams met me as a *surgeon,* in a *surgical* case. Difference of *medical* views offered no bar to our meeting in this case, since no *medical* question was involved. To have refused to meet me would have been a violation of professional etiquette and a breach of Christian charity. In speaking on this point, a distinguished London surgeon wrote thus to me—"*they have no right to complain if we meet either for the purpose of diagnosis or to determine any surgical point.*" To this I think all the better class of our opponents would agree. But I would go a step further and say that the holding of opposite opinions on medical science, offers no barrier to a consultation. It might enhance the difficulty of coming to an agreement, but the declining a case should come *after such a consultation* and only when *agreement was proved impossible.* Indeed, in the present day, the chief use of a consultation is to determine some difficult point of diagnosis, and in this, as it involves pathological and physiological dicussion only, the physicians of both schools could meet in accord.

The refusal to meet, in these cases, can only proceed from the spirit of " trades-union persecution :" from an attempt to *put down* those who practise homœopathy by making their path difficult, and by holding over the public the *threat* that they must expect no further assistance in a difficult case, if they call in a physician who practises homœopathy.

But persecution never yet trod out the flame of truth. Listen to the words of the Editor of the " LONDON MEDICAL REVIEW," an allopathic journalist. He says, in a letter published in this very number of the " British Journal" (May 24), "It is idle for us to contend that homœopathy is a subject we all ought to ignore, right or wrong, it has somehow or other got a hold on the public mind which it is vain to dispute, as it is constantly obtruded upon us in practice in a way that is singularly unpleasant. I venture to say, there is scarcely a medical man in the kingdom who has not felt the influence of this 'delusion' on his professional income; and it, therefore, behoves us all to look at this question in some way different, to that in which it has hitherto been regarded; for I fear that the 'delusion' is rather increasing than otherwise.

"Now, sir, what has been the conduct of the medical press on the question for years past? *Has it not been one continued tirade of illiberal persecution ?*—and what has been the result? Why, as ever happens in all persecutions, the persecuted excite the greatest amount of attention and sympathy."

It is cheering to hear the "notes of nobler song" from the hitherto discordant ranks of our literary opponents.

Fourthly—It scarcely is needful to do more than to point out that, whatever may be the feelings of the editor of the "British Medical Journal," or those of the Cambridge doctors, they clearly have no right to dictate to Mr. Adams what is his line of duty This is " *trades-unionism*" in its worst phase. The individual surgeons have an undoubted right to cast down their scalpels before the idol of their prejudice, but they have no right to insist on Mr. Adams joining in an idolatry he detests.

I forwarded the following letter embodying these ideas to the editor, which he published in the "Journal" for May 31st.:—

MEDICAL CONSULTATIONS WITH HOMŒOPATHS.

Letter from William Bayes, M.D.

SIR,—I appeal to your sense of justice to insert these few lines in reply to an attack upon my professional reputation which appeared in your "Journal" of May 24th.

I have also some further claim upon your space, as an old member of the British Medical Association; from which I withdrew in consequence of the policy adopted by the Association towards those members of the profession who adopted the practice of homœopathy.

It is not to discuss this policy that I now address you; but to draw your attention to a very important error in Mr. Helm's note; viz., his having characterised me as a *homœopath.*

We all remember the result of the discussion before a certain learned society, as to *why* a glass of water *with a fish in it* weighed less than a glass of water containing no fish; and how, after very numerous and long arguments had been heard on both sides, it was at last determined to weigh both glasses, and ascertain if the assertion were true.

Now, Mr. Helm might have spared himself much trouble had he first ascertained whether I was a homœopath.

In a reply I wrote to Mr. Braithwaite's *Temperate Examination of Homœopathy* (*Two sides to a Question*), I distinctly state that "I object to the title of homœopath; its assumption savours of sectarianism." I am content with the title of physician and surgeon. I am an extra-licentiate of the London College of Physicians and a member of the College of Surgeons of England; and by virtue of these diplomas, I am bound to practise my profession conscientiously, and to prescribe, in every case which comes under my care, *to the best of my judgment*, unswayed by prejudice, and undeterred by threats and intimidation.

It may offend you, and some other members of the British Medical Association, that I have examined into and adopted homœopathy into my practice; but my duty clearly binds me to use my own judgment and not yours. I do not say this offensively.

It may also be an offence to certain homœopaths that I have occasional resort to allopathic means; but I am not deterred by this from giv g an opiate or an aperient; nor from using an enema or applying a mustard plaster; nor from using galvanism or cold water compresses; if my judgment tells me that any one of these is best for my patient.

This is the course I conceive it to be my duty to pursue in practice. If I have erred in judgment, I have at least the satisfaction of feeling that I have kept those solemn engagements into which I entered when I became a licentiate of the College of Physicians, and a member of the College of Surgeons. I have striven to maintain a strict eclecticism, to discard sectarian views and prejudices, and to hold myself ever open to conviction. I therefore hold that no man has more right to call me a homœopath, than he would have to call me an allopath, a hydropath, or a galvanist. If I have used any unprofessional license in thus exercising my judgment in the choice of the remedies I have employed, I am ready to answer for it when summoned to do so by the abovenamed Colleges. I have acted, and shall continue to act, openly; and hold myself ready, at any time, to defend my conduct before my professional brethren.

Holding these views, I altogether deny the right of the physicians and surgeons of this town to refuse to consult with me. You say, "The surgeons of Cambridge, in the course they have taken, have a right to the support of the profession."

To this I answer, they have behaved towards me in an unprofessional manner, in refusing to meet me; and in an un-English manner, in condeming me unheard.

The late Dr. Bright to my personal knowledge, prescribed Ruspini's styptic in a case of hæmatemesis. Was he a quack because he prescribed a quack remedy? Nearly all the physicians and surgeons in England prescribe James's powder, an empirical remedy. Does this make them all empirics?

Many physicians and surgeons in London and elsewhere prescribe aconite in inflammations and fevers, arnica in wounds and bruises, belladonna in scarlet fever, and as a prophylactic against scarlet fever. Does this make them homœopaths? Nay, I am told that those very men who refuse to meet me because I prescribe homœopathically, do so themselves without reproach. I heard of a case of purulent ophthalmia, under one of the surgeons, having been cured by the application of gonorrhœal matter to the eye; and that another of the surgeons had used the third dilution of belladonna in another case with good effect.

What then constitutes a homœopath? If the use of two or three homœopathic remedies does not make a man a homœopath, how many are required to produce that result? Will the use of fifty do it? or one hundred? or three hundred? Or, perhaps, the transmutation of a physician into a homœopath does not result from the use of a number of homœopathic remedies; but comes from his confessing to their use. To use aconite, arnica, and belladonna, may be lawful and right; but to acknowledge that they are used homœopathically may be a deadly sin. The medicines may be used; but their effect must not be ascribed to their homœopathicity. Our greatest poet says:

> "The rose by any other name would smell as sweet;"

but in matters of science it is usually considered most conducive to advancement to call all things by their right names. I see no justice in holding a man up to professional reprobation because he accepts the theory of "similars" as an explanation for certain facts which cannot otherwise be accounted for.

In my opinion, no man deserves the title of homœopath unless he confines himself solely to homœopathy in his practice. Such a man ceases to be a physician, in the wide sense of the term. On this point, I have always spoken as strongly as you would do; but the use of homœopathic treatment, so far as judgment and experience prove it to be advantageous to a patient, does not appear to me to constitute a man a homœopath, nor to give the members of the profession any right to stigmatise the physician so using it, nor to withdraw themselves from consultation with him.

Finally, let me assure Mr. Helm and the other members of my profession, that I shall not look on it as an unfriendly act if he or they cite me before any legally constituted court-medical, such as before the College of Physicians or the College of Surgeons. I will offer every facility to a full inquiry, and will accept their decision on the matters in dispute; but I must protest against the un-English and unprofessional proceedings by which the members of this town have sought to blacken my reputation.

I am, etc.,

WILLIAM BAYES.

Cambridge, May 25th, 1862.

To this letter the Editor vouchsafed a reply in a leading article in the same number, as under :—

Leading Article, extracted from the British Medical Journal, May 31st.

"WHAT IS A HOMŒOPATH?

"We have more than once been forced to argue with members of the profession as to what does and what does not constitute a professional consultation with homœopaths; though, at the same time, we have always felt that if men would only listen to common sense as their guide, instead of to their private interests, there never would have been any need for such an argument.

"It appears that there are individuals possessing the title of Doctors, who practise homœopathy, and yet do not know what a homœopath is. At another page will be found a letter from Dr. Bayes, the gentleman alluded to (in a correspondence published in last week's 'Journal') as the homœopath with whom Mr. Adams, of the Orthopædic Hospital, had held medical consultation. Dr. Bayes, though he practises homœopathy, declares that he is not a homœopath. He feels insulted at the insinuation.

"We would call attention to his epistle, because it shows (if anything more were wanted as a proof) so clearly the deceptive character, in the face of the public, of the thing which goes by the name of homœopathy. Dr. Roberts of Manchester, as our readers may remember, lately proved to demonstration that men under the guise and name of homœopaths are practising medicine after the manner of medical men; using the same therapeutical agents, giving the same doses of drugs, and putting their patients under similar conditions to those usually prescribed by medical men. This they do, and boast themselves to be homœopaths; and so induce the public to set down the good results of their practice to the credit of homœopathy.

Are we, then, unjust when we say that the practice of homœopathy is, in great part, dishonest as well as delusive? And ought we not, with such considerations—such flagrant proofs of dishonesty in its practice before us—to be especially careful to eschew all professional tampering with homœopathy? That there are men amongst the homœopaths, who honestly believe the Hahnemannic theory, and honourably practise what they believe, we doubt not for a moment.

And all we can fairly do with such men is to pity their simplicity and avoid their professional acquaintance. But, as we have already said, and know right well, at this present moment the great body of the homœopaths are acting and sailing along under false colours. They pretend to one thing, and practise another; and doubly practise upon the credulity of the public, acting as medical men under the title of homœopaths; practising medicine, and telling their patients that it is homœopathically they are being treated.

"With regard to Dr. Bayes, we will readily admit what he claims—that he is acting, in all he does in this matter, according to the peremptory dictates of his reason, his knowledge, and his conscience. But then we are driven to the conclusion that men who honestly believe in the doctrine of 'similars' possess a logic of their own. There is no arguing with them according to the ordinary sense of mankind. What, for instance, are we to do with Dr. Bayes, as he writes himself down? He practises homœopathy, but is indignant at being called a homœopath. He says that, by acting as he does, he keeps the solemn engagements he entered into with the Colleges to which he belongs; quite ignoring the fact that if he had told the Colleges, when he entered into those engagements, what his conscience now suggests to him as the right line of practice, the Colleges would have entered into no engagements with him. He is bold also in now offering to defend himself before Colleges which have no power over him. He is blind to the fact that the men of Cambridge have just as much right—are just as much bound in conscience—to refuse to meet him, as he is to practise homœopathy. He argues that Dr. Bright, in using Ruspini's styptic, was as much of a quack as the man who practises homœopathy! He thinks the cases similar! Does the fact, he asks, of many physicians and surgeons prescribing aconite and belladonna make them homœopaths? A demi-homœopath, he asserts, may be, but an entire homœopath ceases to be a physician. He fully goes with us in denunciation of the homœopath *pure et simple.* What will the homœopathic fraternity say to this new confession of modified homœopathic credulity? As a specimen of aberration of logic, and particularly as a proof of the position which homœopathy is now made to assume—its shifting shuffling character—we have called attention to this letter."

This article appeared to me to demand an answer, especially as the Editor entirely "begged the question" as to the *legality* of the *liberty* we claim on matters medical. I therefore sent him the following letter :—

"*To the Editor of the British Medical Journal.*

"CONSULTATIONS WITH HOMŒOPATHISTS.

"SIR,—I have to thank you for your courtesy in inserting the letter which I forwarded to you last week.

"I shall esteem it an equal favour, if you will grant me a little space in your valuable pages, to notice a few points in your leading article upon that letter; presuming that it is as much your desire as mine to elicit truth, and not to darken or confuse it.

"In controversial writing two points appear to me to be permanent. *Firstly*, to give your opponent credit for perfectly good faith; and, *secondly*, to be very careful that all the *facts* should be fully and accurately stated.

"In the leading article, 'WHAT IS A HOMŒOPATH?' you speak of my consultation with Mr. Adams, as a '*medical consultation*;' whereas it was purely *surgical*, and one in which no point of difference as to medical treatment could arise.

"I must further ask your forbearance if I make a few remarks on the latter part of the same article, in which you say that, *I ignore the fact that, if I had told the Colleges, when I entered into my engagements with them, what my conscience now suggests as the right line of practice, the Colleges would have entered into no engagements with me.*

"It does not appear quite clear whether you mean that the Colleges would have *rejected* me, if I had told them that I *intended to practise homœopathy*, or whether you intend to convey that they would have *rejected* me, if, after having proved to them that I was acquainted with the *therapeutics*, &c., of the day, I had added that I should, nevertheless, adopt *new remedies* from time to time, and 'prescribe, in every case, according to my judgment,' the new or the old?

"If your article is to bear the latter interpretation, and had the pledge been exacted from each candidate that he would promise to restrict himself to the practice and the remedies in vogue, or even to the theories in vogue, on the day of his examination, I opine that but few new members would have been enrolled at either College.

"But if you meant that had I confessed myself a homœopath, they would not have passed me—to this I feel bound to answer, in justice to myself, that at the time I obtained my degrees, I was entirely ignorant of homœopathic practice, and had a very imperfect and unjust view of homœopathic principles. Had I, at that time known or practised either, I should have deemed it right to avow such knowledge and such practice.

"As to the consequences of such an avowal, it is scarcely profitable to discuss what *might have been*, in the presence of *what is*.

Still I believe the College of Physicians has not attempted to interfere with the medical liberty of its candidates, or its members, since the days when it imprisoned Dr. Groenvelt for administering cantharides—and the College of Surgeons has passed men who have made no secret of their belief in homœopathic medication.

"The position which I assumed in my letter, when I challenged my opponents to cite me before the Colleges, is not an empty boast, but is made to illustrate the proposition, that, if I have *broken no law*, I ought to *suffer no punishment*.

"In adopting homœopathy into my practice, I have broken no clause in the *Medical Act*, nor any bye-law of the *College of Physicians or College of Surgeons*.

"The 23rd Clause of the new Medical Act, makes it illegal for any College 'to impose upon any candidate an obligation to adopt or refrain from adopting the practice of any particular theory of medicine and surgery'—but it does not take away their 'power' over me if I have committed any act unworthy of my professional honour.

"Nor do I object to meet, openly, any charge of non-professional conduct (if my opponents can charge me with such), either before the Colleges, or before some fairly constituted 'Court Medical,' such as that which has recently tried the case between Dr. A. P. Stewart and Mr. I. B. Brown.

"All that I ask of the members of the profession is that they should adhere strictly to the *law*. Their present conduct towards me savours more of the un-English law of *Judge Lynch* than of the well ordered adjustment of an English dispute.

"English law considers every man *innocent* till he is proved *guilty*. My opponents have condemned me unheard and without one tittle of evidence against me.

"It is thus that I answer the assertion, 'that the men of Cambridge have just as much right—are just as much bound in conscience—to refuse to meet him (Dr. Bayes) as he has to practise homœopathy.'

"I am acting with the strictest legality, both in accordance with the Medical Act and with the bye-laws of the Colleges to which I belong, while the professional men of Cambridge *Lynch* me because I hold, to some extent, *views of treatment differing from their own.*

"I must add that I should not have brought the conduct of the physicians and surgeons of Cambridge before the profession at large, had they not gone so far beyond all bounds of moderation.

"Not content with refusing to meet me in consultation themselves, I have yet to learn on what possible principle of justice they should attempt to deter others (who have not the same objection as themselves) from giving me the benefit of their advice.

"They *Lynch* me for doing that which is *legal,* and they threaten to *Lynch* any one who wont join them in *Lynching* me.

"Show me that I break any *law* or *bye-law* of the profession or of the colleges, and I will submit, without raising any quibble, to the legal punishment. But if I have *broken no law*, I protest against being illegally punished.

"I am, yours, &c.,

"William Bayes.

"*Cambridge, June* 1, 1862."

This letter was refused insertion by the Editor, but it was noticed in the subjoined paragraph :—

"Dr. Bayes.—We really cannot see that justice to Dr. Bayes demands the publication of his second letter to us. With the homœopathic logic to which we formerly referred, he says: 'You speak of my consultation with Mr. Adams as a *medical consultation*, whereas it was purely *surgical.*' Are not surgeons medical men? Besides, what are we to understand as to the fact of a consultation? Mr. Adams says there was *no consultation at all;* Dr. Bayes says there *was* a consultation, but that it was *surgical.* These two gentlemen do not seem to be helping each other much in attempting to define distinctions without differences. Dr. Bayes also wishes to know what we meant about the Colleges entering into no engagement with him under certain circumstances. We meant simply this: that, if he had stated a belief in homœopathy when he presented himself for examination, he would have been 'rejected'—*i. e.*, not admitted a member of them. Dr. Bayes states, what everybody knows, that he breaks no medical Act, nor bye-law of Colleges, in practising homœopathy; and he therefore accuses those who refuse to meet him of being Lynchers. He would like to be tried by a College, or even by a couple of referees. 'They' (the Cambridge doctors) 'Lynch me for doing that which is legal, and they threaten to Lynch every one who won't join them in Lynching me.' We give Dr. Bayes all the credit he can ask for the strictest honesty in this matter of his credulity; but he at the same time must in a like manner give us the same credit for strict honesty in believing that no member of the medical profession who believes homœopathy to be be a delusion, can honourably and honestly have medical intercourse with homœopaths. We therefore praise the men of Cambridge for their resolute demeanour in the matter of homœopathic consultations."

There is something very ludicrous in the confusion which exists in the editorial mind of the British Medical Journalist. He cannot see any difference between a "*surgical*" and a "*medical*" consultation, and asks, in the piteous helplessness of inextricable mental confusion, *Are not surgeons medical men?* The Editor's ideas of logic appear to be quite on a par with those of the celebrated logician who proved that an "*eel pie*" was a "*pigeon*."

He says that a "surgical consultation" is a "medical consultation," because a surgeon is sometimes called, in common parlance, a "medical man!"

Then he still hugs the idea that, if I had stated my belief in homœopathy when I presented myself for examination, I should have been rejected. Yet he very well knows that I knew nothing about homœopathy *at that time*, and, since that time, the law says distinctly, that the colleges shall "impose no restrictions as to any particular theory," on candidates. Does the Editor forget that the reason why Guy Faux did not walk over Westminster Bridge, was simply because Westminster Bridge was not built till after Guy Faux was dead.

But, seriously, I thank the Editor for this admission: "*Dr.*

Bayes states what everybody knows, that he breaks no medical act, nor bye-law of colleges, in practising homœopathy."

On this I am content to take my stand, and to ask my professional brethren why, if I have ***broken no law or bye-law,*** they treat me as a culprit? They stand convicted of ***lawlessness*** out of their own mouth.

In conclusion, let me bring to the remembrance of the better of my adversaries, the words of a great man when unlawfully accused. "For if I be an offender, or have committed anything worthy of death, I refuse not to die: but if there be none of these things whereof these accuse me, no man may deliver me unto them. I appeal unto Cæsar."

I too appeal unto Cæsar—to that public opinion which has, in the present day, decided many and weighty points, and which has rescued many oppressed from their oppressors. And I have every confidence that their decision will favour the cause of liberty and of science.

It rejoices me to see, as a sign of the times, that the Editors of the "London Medical Review" and of the "Medical Circular," openly express their disapprobation of the course adopted by the "British Medical Journal," while, ***in the present instance,*** both the "Lancet" and "Medical Times" have hitherto stood aloof and kept ominous silence.

Cambridge, June 10, 1862.

A STUDY OF HYDROCYANIC ACID.

By Henry R. Madden, M.D., and Richard Hughes,
L.R.C.P., Ed. (Exam.) M.R.C.S.

Introduction.—Hydrocyanic Acid, although one of the most powerful and frequently used of poisons—although its main physiological effects are of a purely dynamic character, and tolerably well known, at least phenomenally, has, nevertheless, been very rarely used in homœopathic practice. In the old school even, its empirical use is practically restricted to the relief of pain and sickness of the stomach, and of spasmodic affections of the organs of respiration.* To rescue the medicine from this undeserved neglect, and to indicate with precision its sphere of usefulness, is the object of the following paper. We are especially urged to the task from our growing conviction, that in Hydrocyanic Acid we possess the true curative agent for one of the most distressing and intractable disorders which afflict humanity—we mean epilepsy.

HISTORY.—The poisonous energy of the Bitter Almond and of the Cherry Laurel had been long familiarly known ; but the principle upon which this property of their's depends was discovered in 1782 by Scheele, and was first obtained in a state of purity by Gay Lussac. It is this which is commonly known as Hydrocyanic or Prussic Acid.

PHYSICAL AND CHEMICAL CHARACTERS.—The pure or anhydrous Prussic Acid is composed of one equivalent of hydrogen and one of cyanogen (H. + Cy.), hence the name "Hydrocyanic." It is liquid, limpid, and colourless. "It has an acrid, pungent taste, and a very peculiar odour, which, when diffused through the air, has a distant resemblance to that of Bitter Almonds ; but is accompanied with an impression of acridity on the nostrils and back of the throat. It is an error, however, to suppose, as very many have done, that the odour is the same as that of the Almond. It boils at 80°, and freezes at 5° It is very inflammable. It decomposes spontaneously, and becomes brown sometimes in an hour, and commonly within twelve hours, unless it is kept very cold. When united with water it forms the acid discovered by Scheele, and now kept in the chemists' shops. In this state it has the same appearance, taste, and smell as the pure acid ; but it is less volatile, does not burn, and may be preserved long without change, if excluded from the light. In consequence of its volatility, however, it becomes weak, unless kept with great care." (Christison).

---

* See Christison's *Dispensatory, in verb.* Pereira's *Materia Medica,* 2nd Ed., vol. i. p. 442-3.

SOURCES, COMPOUNDS, &c.—Medicinal Prussic Acid is ordinarily obtained from the Ferro-cyanide of Potassium, by the re-action with this substance of Sulphuric Acid. It is also contained in many vegetable productions, as the bitter almond, the cherry laurel (Laurocerasus), the leaves of the Acacia, the sweet almond, and the common lilac; the kernels of the cherry, peach, nectarine, damson, mountain ash, and apricot, with the leaves of the corresponding trees; the seeds of apples and pears; and the root of the Jatropha Manihot, or bitter Cassava, of the West Indies. Of these, the bitter almond and the cherry laurel are of most importance. In the bitter almond the acid does not exist ready formed, but is produced by the agency of water on the pulp. The essential oil is highly poisonous, containing, as it does, about 12·76 per cent. of anhydrous Prussic Acid. The distilled waters of the bitter almond and cherry laurel vary much in strength, their quantum of acid ranging from 0·25 to 1 per cent. The compounds of this acid with alkaline bases are highly poisonous; the Cyanide of Potassium being one of the most formidable poisons known. Its compounds with metals vary much in character; the cyanide of iron (Prussian blue) being altogether inert, the cyanide of Mercury behaving like Mercury, and the cyanide of silver like Hydrocyanic Acid.

PHYSIOLOGICAL ACTION.—We shall best study the physiological action of Hydrocyanic Acid by relating some of the numerous cases of poisoning by it which are on record, adding such commentaries as may be necessary to elicit the meaning of the symptoms. We shall then give some account of the provings which have been made with this drug upon the healthy body.

I.

The following case is extracted by Dr. Hempel from the *Lancet* (*Materia Medica*, p. 823). We have been unable to ascertain in what volume or number of that journal it is contained. The narrator is Dr. Letheby :—

"A girl, aged 22 years, swallowed, by mistake, a dose of

Prussic Acid, equivalent to a little less than a grain of the pure poison. At the time when this was taken, she was sitting in a chair; but she instantly jumped up, ran for a short distance, holding up her arms, and gasping, as it were, for breath; she then fell, became insensible, and was violently convulsed; the muscles of her face undergoing great distortion, her limbs becoming spasmodically extended, and her head drawn down upon her shoulders. In this state she was removed to her bed, and was seen directly afterwards by Mr. Watson, who found her lying on her back, with the body drawn a little forwards; the limbs fixed and extended in tetanic spasm; the whole face swollen, turgid, and almost purple from congestion; the jaws clenched; the mouth covered with foam; the eyes half closed, but prominent and glistening, with their pupils widely dilated, and quite insensible to the stimulus of light. She was breathing slowly with deep, prolonged inspirations, and uttering a low, moaning noise. The pulse at her wrist could not be felt, although the heart still continued to beat with a feeble, fluttering effort.

"The symptoms so closely resembled an epileptic fit, that the medical gentlemen who were called in supposed at first that the patient was labouring under such an attack; but soon discovering that she was suffering under the action of Hydrocyanic Acid, they instantly adopted means for her recovery, but without the least avail, for the breathing became slower and slower; the limbs at this time remaining fixed and immovable, and she died in from fifteen to twenty minutes after the administration of the poison.

"The *post mortem* appearances in this case were as usual in cases of poisoning by Hydrocyanic Acid. The cerebral vessels, both upon the surface and in the substance of the brain, full of black, fluid blood; the lungs highly congested, but free from tubercle or other disease; the cavities of the heart full of black, uncoagulated blood."

Upon this narrative we would make the following remarks:—

1. The tetanic character of the convulsions in this case is very well marked; and this type of spasm almost invariably

obtains in poisoning by this drug. We are thus led to set it down as an excitant of the motor tract of the spinal cord. The only other possible source of the tetanus of Hydrocyanic Acid would be its excitant influence on the medulla oblongata; for it has been ascertained by Professor Weber, that if the medulla oblongata be excited by galvanism, general tetanic convulsions are the consequence, which resemble those observed in persons poisoned by strychnia.* But an experiment by Wedemeyer shews conclusively the independent action of our drug upon the spinal cord. He divided the cord between the last dorsal and the first lumbar vertebræ, so that the hind legs were completely paralysed and insensible to mechanical irritants; Hydrocyanic Acid was then introduced into one of the hind legs; in one minute, symptoms of poisoning commenced; the hind, as well as the fore-legs, were violently convulsed, and in twelve minutes the animal was dead.†

2. The next most prominent symptoms are those of asphyxia. The face was "swollen, turgid, and almost purple from congestion;" and after death the head, lungs, and heart were found gorged with dark and fluid blood. The "gasping for breath," with which the symptoms set in, and the laboured respiration which went on until death, points to the cause of this asphyxia, viz., to an impediment in the way of the entrance of air through the respiratory passages. This spasmodic character of the dyspnœa of Hydrocyanic Acid is frequently noticed by writers on toxicology, and narrators of cases of poisoning. To account for it, we have only to extend the excitement produced by the drug in the spinal cord up into the medulla oblongata, which, indeed, is nothing but the intracranial continuation (as its name implies) of the medulla spinalis. This being the centre of the pneumogastric nerves, its excitation will necessarily give rise to laryngismus, trachelismus, and bronchial spasm like that of asthma.

3. Another phenonmenon observed by Professor Weber, after galvanism of the medulla oblongata, was stoppage of the action of the heart.* Claude Bernard has demonstrated that

---

* See Althams on *Medical Electricity*, p. 74.

† Hempel, *Op. cit.*, p. 823.

this influence is trasmitted to the heart through the pneumogastric nerves; and Brown Sequard has shown that this, and not any interference with a "nœud vital," or respiratory centre, is the cause of the sudden death which follows upon the operation of "pithing." We should be disposed to refer to excitation of the medulla oblongata, the imperceptible pulse and feeble fluttering action of the heart noticed in this case, as well as the exceedingly sudden death, which so often occurs in poisoning by this drug, and which can only be compared to that consequent on pithing.

4. The last phenomenon which we have to consider is the sudden loss of consciousness. In the epileptic paroxysm, for which this case was at first mistaken by the medical attendants, this symptom arises from a contraction of the cerebral arteries; the excitement of the medulla oblongata being directed upon these through the medium of the cervical sympathetic, with which it communicates. We have already ascertained the presence of excitement of this centre in the case before us; and in the dilated and insensible pupil, with prominent and glistening eyeball, we have abundant evidence of excitation of the cervical sympathetic. We therefore believe ourselves fully justified in setting down the sudden loss of consciousness in this case to contraction of the cerebral arteries by the excitant influence transmitted from the medulla oblongata, and upper part of the spinal cord, through the cervical sympathetic.

5. Lastly, we think that every reader of the case will understand the mistake of the medical attendants, who regarded it at first as a severe epileptic paroxysm. The sudden falling and loss of consciousness, with dilated pupil; the subsequent laryngismus, empurpled face, foam at the mouth, and convulsions—together form a perfect picture of the attack of this frightful disease. We know of no other drug capable of causing so close a resemblance to the epileptic paroxysm, except occasionally some of the Umbelliferæ, especially the Œnanthe Crocata. The only point of difference lies in the character of the general convulsions, which here are tonic, but in epilepsy clonic. But this is accounted for by the independent action of Hydrocyanic Acid upon the spinal cord, which it excites

similarly to strychnia. The convulsions of epilepsy are due either to the circulation of non-arterialised blood, thus resembling those of poisoning by Carbonic Acid, or, in some yet unexplained manner, are the direct consequence of the sudden cutting off of the supply of blood to the brain.

II.

The symptoms of poisoning by Hydrocyanic Acid are so uniform, and the above case is so typical of its ordinary effects, that we shall content ourselves with summaries of a few other cases.

1. Professor Christison gives the following summary of a case of involuntary poisoning, taken from the *Revue Medicale*, for 1825, vol. I., p. 265. The case is recorded at length in Hempel's *Materia Medica*, p. 824.

"Very soon after swallowing a teaspoonful of the diluted acid, he felt a confusion in the head, and then fell down insensible as suddenly as if struck by lightning. There was difficult breathing; small pulse, scarcely perceptible at the left wrist; bloating of the face and neck; dilated and insensible pupils; and lock-jaw. Afterwards he had several fits of tetanus; one of them extremely violent. In about two hours and a half he began to recover his intellect, and rapidly became sensible."

The epileptiform loss of consciousness, the tetanoid convulsions, and the spasmodic dyspnœa of Hydrocyanic Acid are well marked in this case.

2. Dr. Taylor* gives the following account of the poisoning of seven epileptic patients in the Bicêtre, at Paris, by an overdose of this drug:—

"The symptoms, as they are described by Orfila and Devergie, were as follows:—Seven minutes after the poison had been swallowed, all the patients were found lying on their beds in a state of insensibility; they all had convulsions. The respiration was loud and hurried, the mouth covered with froth, the body in a state of perspiration, and the pulse frequent. To this stage of general excitement, there gradually succeeded a mortal collapse, which terminated in death."

---

* *On Poisons*, 1st Ed., p. 654.

3. The following case is recorded in the *Medical Times and Gazette*, of Jan. 9th 1858:—

"The deceased, Agnes Montgomery, was 27 years of age, an active woman of good health, and never subject to fits or convulsions. She was seen by her sister in her usual health about half-past four o'clock, P.M., on Sept. 13, 1857. Soon after five o'clock, in consequence of hearing a moaning noise, the witness entered her room, and found her sitting in a chair insensible, with her head leaning on a table, her right hand hanging down, and her left hand in her lap. Her eyes were prominent, fixed, and staring; and a thick 'slavery froth,' tinged with blood, issued from her mouth. Her face was bluish-red, and swollen. There was difficulty of breathing; she gave heavy sighs, with occasional sobs, got worse, and died. A medical man saw deceased at about half-past five. His evidence as to her condition confirmed that of the non-professional witness. The eyes were staring and motionless, and the pupils dilated. She breathed slowly and with difficulty, and the respirations were rather deep (heaving); the pulse was between 70 and 80; there was coldness of the skin, with spasmodic contraction of the jaw. She had bitten her tongue, and this had occasioned the bloody appearance of the froth which issued from her mouth."

The biting of the tongue in this case is interesting, as frequently occurring in the epileptic paroxysm. Professor Van der Kolk has shown it to depend upon a special intensity of irritation in that part of the medulla oblongata from which the hypoglossal nerve takes its origin. This causes the tongue to protrude, at the same time that the jaw is forcibly closed by the excitation of the motor division of the fifth.

4. One more case of poisoning by this drug may be recorded. The account is given by Dr. Geoghegan, in the

Dublin Medical Journal, Nov., 1835. We take the summary from Pereira :—

"The patient was a gentleman, aged 21. He had been taking Hydrocyanic Acid for a gastrodynia, and gradually increasing the dose. On the sixth day, he swallowed 2 drms. of the dilute Acid of the Dublin Pharmacopœia (1·6 per cent.). In two minutes after taking this quantity, he experienced a sensation of extreme bitterness in the mouth, and having walked a few paces, was affected with great confusion, headache, and loud ringing in the ears. He now with difficulty retraced his steps; and leaning forward on a table, became insensible, and fell backwards. In this state he remained altogether between three and four minutes, during which time he was violently convulsed. His thighs became rigid, and were drawn up on the abdomen; and as he was about falling, he was caught and placed on the ground. The upper extremities were then observed to be also rigid; and on drawing them from the side, they forcibly reverted to their former position; the eyes were shut, the teeth clenched, and the muscles of the face violently convulsed."

Rapid recovery took place under the use of Ammonia.

5. Christison gives the following account of the action of the poison upon animals :—

"When an animal is poisoned by a dose not quite sufficient to cause death, it is seized in one or two minutes with giddiness, weakness, and salivation; then with tetanic convulsions; and at last with gradually increasing insensibility. After lying in this state for some time, the insensibility goes off rapidly, and is succeeded by a few attacks of convulsions, and transient giddiness. The whole duration of such cases of poisoning sometimes does not exceed half-an-hour; but may extend to a whole day, or more. When the dose is somewhat larger, the animal perishes either in tetanic convulsions or comatose."

6. The poisonous effects of Cyanide of Potassium, and of the Bitter Almond, depend entirely upon their Hydrocyanic Acid. The following quotations from Dr. Taylor's *Treatise on Poisons* will shew this. Of the first-named substance, he writes :—

"The symptoms produced by Cyanide of Potassium are similar to those occasioned by Prussic Acid—spasmodic respiration; convulsions, with tetanic stiffness of the limbs and trunk. M. Bonjean found that animals to which this poison was given, invariably had convulsions, tetanic spasms, and abdominal respiration."

And he narrates the following case of poisoning by the essential Oil of Bitter Almonds:—

"A woman swallowed about seventeen drops of the oil, and died in half-an-hour. She was seen by Dr. Bull in about fifteen minutes. Her face was livid; lips separated; teeth clenched; froth about the mouth; eyes half shut and glassy; pupils dilated and fixed; heavings of the chest at intervals; there was no pulse; and the action of the heart was barely perceptible. The first symptoms observed in this case were strong convulsions. In the *post mortem* examination, the system was found gorged with venous blood."

III.

Pereira thus sums up the *post mortem* appearances in cases of poisoning by this acid:—

"Glistening and staring expression of the eyes, which, however, is not a constant phenomenon, nor peculiar to this poison, since it has been observed after death by Carbonic Acid, from cholera, and during the epileptic paroxysm (Christison)."

It is so frequent, however, that Dr. Paris considers it as alone supplying decisive evidence of poisoning by Prussic Acid. It probably depends upon the excitation of the cervical sympathetic.

"The venous system usually gorged with blood, while the arteries are empty."

This results from the usual mode of death in poisoning by this drug, viz., asphyxia.

"The blood is, in many cases, fluid, dark, or bluish-black, and viscid, or oily."

Pereira considers that Hydrocyanic Acid has a direct hæmatic action, and the evidence seems in favour of this view. The condition of the blood-plasma induced, strikingly resembles that which obtains in Asiatic cholera.

"The vessels of the brain and spinal marrow are frequently gorged with blood, and the cerebral ventricles sometimes contain a serous, or sanguineous liquor; the lungs are, in some instances, natural; in others, turgid with blood. The internal lining of the stomach is sometimes red."

The muscles are usually fully susceptible to galvanic excitation; but sometimes, after death by the strong acid, are insensible to it—probably from exhaustion of excitability.

IV.

We now pass from the more intense effects of Hydrocyanic Acid to the symptoms resulting from less powerful doses; and finally, to those elicited by its systematic proving.

The following extracts are taken from Dr. Taylor's work:—

"1. A practitioner was shewing to some friends the effects of Scheele's acid on an animal, when, by accident, a quantity of the poison fell upon the dress of a lady who was standing before a fire. The poison was rapidly evaporated, and the lady was immediately seized with dizziness, stupor, inability to stand, and faintness. The pulse became feeble and irregular. Brandy was administered, cold affusion employed, and the patient was exposed to a free current of air. In ten minutes the pulse began to improve; and, with the exception of tremor in the limbs, the unpleasant symptoms disappeared."

"2. I have known headache and dizziness produced by the vapours from the small quantities used in chemical experiments."

"3. In a case in which a person poisoned himself with two ounces of the acid, and his body was examined twenty-eight hours after death, the vapour of Prussic Acid, which escaped on opening the stomach, was so powerful that the inspectors were seized with dizziness, and obliged to quit the room hastily."

4. A physician took by mistake a small quantity of a solution of Cyanide of Potassium. "He immediately felt severe pain in the back of the head; there was inability to stand;

indistinct vision; nausea; a rushing sound in the ears; loss of consciousness; and, without complaining of any well-defined pain, he felt that he had lost the power to make a deep inspiration. The loss of sense was as rapid as in ordinary syncope. When an effort was made to swallow some milk, there was a strong sense of choking, followed by copious vomiting. For more than an hour, he could not stand upright. Vertigo, weight in the head, and constriction in the throat, continued for many hours."

From Dr Hempel's article in his *Materia Medica* we extract the following:—

"5. Ittner, while preparing the acid and inhaling the vapours, experienced constriction of the chest; difficulty of breathing; vertigo; weariness; shivering."

"6. Coullon says, in his *Recherches sur l'Acide Hydrocyanique*, that he swallowed successively 20, 30, 40, 50, 60, 80, and 86 drops of Prussic Acid in water. The taste was intolerably bitter. The first doses had no effect. The last-mentioned doses caused the following symptoms—Increased secretion of saliva for two or three minutes, and two or three attacks of nausea. The pulse rose from 57 to 77 or 78 beats; in an hour and a half, it had regained its normal frequency. For some minutes the experimenter complained of heaviness of the head, and of some headache, which seemed to be localised beneath the hairy scalp, on the anterior portion of the head. For upwards of six hours he experienced a marked anxiety in the region of the heart, alternated with a slight throbbing pain in the same region, which did not increase by pressure."

"7. Sandras reports in the December number of the *Gazette Médicale*, 1829, that Hydrocyanic Acid, if taken in small doses, causes formication; prickling; sleep, or else sleeplessness; frequently headache; shivering. Larger doses cause vertigo; buzzing in the ears; a sort of delirium; intoxication."

8. Pereira writes, "If the ordinary medicinal dose be cautiously increased, and its operation carefully watched, the following effects are usually observed—a bitter, but peculiar taste; increased secretion of saliva; irritation in the throat;

frequently nausea; disordered and laborious respiration (sometimes quick, at others, slow and deep); pain in the head; giddiness; obscured vision, and sleepiness. The vascular system is, in some cases, not obviously, but in others, much affected, though not uniformly; its action being sometimes quickened, at others reduced in frequency. In some instances faintness is experienced. Drs. Macleod and Granville have noticed salivation and ulceration of the mouth during its medicinal use."

9. The Cyanide of Potassium is used in the process of galvanic gilding and silvering, as a solvent for the metals. Dr. Taylor writes, "The symptoms in those who remain for a long time at this work are—dull headache, accompanied by shooting pains in the forehead; noises in the ears; vertigo; dizziness; and other effects indicative of cerebral congestion. Then follow difficult respiration; pain in the præcordium; sense of suffocation; constriction in the throat, and palpitation, with alternate fits of somnolency and wakefulness."

10. Sir B. Brodie applied one drop of the essential oil of bitter almonds to his tongue. He immediately felt a remarkable and unpleasant sensation at the epigastrium, with such weakness in the limbs and loss of power in the muscles, that he thought he should have fallen. These sensations were quite momentary.

There is no difficulty in understanding the majority of these symptoms upon the principles elicited in our study of cases of poisoning by this drug. They are the same morbid conditions, but in a minor degree of intensity. Thus, the dizziness so constantly noticed is just the first stage of that contraction of the cerebral arteries, which, in severer cases, goes on to entire loss of consciousness.

V.

Hydrocyanic Acid is not among the medicines proved by Hahnemann. Professor Jörg, however, and his pupils, have given us an account of the symptoms produced upon themselves by this drug. Not having access to their original record, we must content ourselves with the extracts given by Dr. Hempel, in his *Materia Medica*.

The following group of symptoms are referable to the *head*:—

1. One prover experienced "dulness in the frontal region; cloudiness, like intoxication; dimness of sight."

2. Another prover felt a pressure from the occiput to the forehead; transient vertigo, followed by violent pressure in the occiput and forehead, especially in the right side. From three drops this prover experienced stupefaction and vertigo; wavering of surrounding objects; dimness of sight. He was scarcely able to stand. These symptoms were followed by great dulness in the forehead and occiput.

3. Another prover has recorded the following symptoms—"Pressure extending from the top of the head to each orbit, where it became fixed, and from the top of the head to the occiput, followed by drowsiness and lassitude. These symptoms were caused by one drop of the acid. Three drops caused a sudden paroxysm of vertigo; the air seemed to move slowly around the prover; there was no staggering; the sensation was attended with slight pressure from the occiput to the left side of the forehead. During this attack the eyes seemed immovable; the pupils were at first dilated, afterwards permanently contracted; the pulse varied—at times it was strong, at others, feeble. The attack, which the prover describes as a sort of intoxication, lasted ten or fifteen minutes; it was followed by a scraping sensation in the throat; dyspnœa, as if the lungs could not expand; drowsiness; loss of strength."

4. Professor Jörg himself took two drops. They caused a scraping at the root of the tongue, and in the throat; slight shiverings, followed by dimness of sight, and a weary feeling in the brain. For some days the prover complained of aching pains, now in one, then in another part of the head: a want of clearness of perception; irritable temper; inability to perform mental labour.

The *alimentary canal* was affected as follows:—

5. All the provers experienced a scraping at the root of the tongue, and in the throat, followed, in one case, by a sensation of foul air at the root of the nose, and by pricking.

6. Another prover experienced a sensation as of a lump in

the stomach. After eating some bread and butter, he complained of malaise, heartburn, waterbrash, followed by an increase of hunger; in spite of which, he felt an aversion to food. Violent hiccough troubled him afterwards, accompanied with a disposition to heat and sweat.

7. One prover, who took two drops of Ittner's Acid, experienced a scraping in the larynx, which the other provers likewise complained of, with secretion of mucus; tightness and pain in the chest. The symptoms in the throat and chest suddenly disappeared, and were succeeded by rumbling in the bowels, followed by pain in the right kidney, thence shifting to the stomach, and spreading all over the bowels, without any urging to stool; with a more copious discharge of cloudy urine; general malaise; cold shiverings; occasional return of pain in the head; drowsiness; weariness; diminished frequency of the pulse.

8. In the *urinary organs* nothing was noticed, but an increased flow of watery urine subsequent to the cerebral and respiratory disturbances.

In the *respiratory organs* we have—

9. From two drops, scraping in the throat, with prickling and tickling in the larynx; hacking cough, as if from little hairs in the throat.

10. Constriction across the chest; shooting stitches in the region of the fifth and sixth ribs, near the sternum; tightness of the chest, with stitches when taking a long breath; pressure and tightness in the chest; aching pain in both sides of the chest, changing to stitching; laboured and deep breathing.

And the *cardiac* symptoms elicited were—

11. Palpitation, with flying stitches in the region of the heart; oppression of the heart.

These symptoms are perfectly intelligible upon the doctrines already laid down as to the physiological action of our drug.

Jahr gives a schema of Laurocerasus, for which he refers to the *Archiv.* The symptoms appear to be mainly derived from records of poisoning, and add nothing to what we have collected in the above extracts.

PHYSIOLOGICAL SUMMARY AND THERAPEUTICAL INFERENCES.

We may now proceed to sum up the physiological action of this drug, and to point out the therapeutical inferences deducible therefrom.

The specific action of Hydrocyanic Acid is confined to the nervous system (neurotic), and the blood (hæmatic). Its irritant action is slight and purely local.

NEUROTIC.

1. *Sensory Sphere.*—Hydrocyanic Acid is an anæsthetic, though this effect is rarely manifested, save locally. M. Robiquet informed Christison that once, while he was making some experiments on the tension of its vapour, his fingers, after being sometime exposed to it, became affected with numbness, which lasted several days; and the formication and prickling spoken of by Sandras, resemble the first stage of the anæsthesia of Aconite.

Lotions of this acid have been employed with much benefit to allay itching in certain cutaneous eruptions. Dr. Elliotson says, that, to an irritable face, it is very soothing, if employed before and after shaving.

2. *Motor Sphere.*—Hydrocyanic Acid is a powerful excitant to the whole motor tract of the cranio-spinal axis; from the medulla oblongata to the cauda equina. The great majority of the symptoms produced by it are to be referred to this action. We shall consider them as they appear in the brain, the respiratory organs, the heart, and the muscular system in general.

a. There is no evidence that Hydrocyanic Acid exerts any direct influence on the cerebrum. The sudden loss of consciousness with which its poisonous influence sets in is, as we have shown, the result of contraction of the cerebral arteries by the stimulus conveyed through the cervical sympathetic from the excited medulla oblongata and upper part of spinal cord. The dizziness, with or without headache, which smaller doses occasion, is but a minor degree of the same morbid condition. Thus Pereira's statement is correct, that " whatever be the precise pathological condition of the brain in poisoning by this drug, it is probably identical with that which occurs during an epileptic paroxysm, and with that produced by loss of blood." The resemblance between epilepsy and poisoning by Prussic Acid has been noticed by most writers on toxicology and Materia Medica. Pereira's fourth class of cerebro-spinants are "epileptifacients," and are headed by Hydrocyanic Acid, and the substances containing it. Of them he writes: "The sudden loss of sensation and consciousness, with violent convulsions, which are the characteristic effects of this order, constitute also the essential symptoms of an epileptic paroxysm." Christison says: "Epilepsy resembles closely the symptoms caused by Prussic Acid;" and again, "it induces coma and convulsions, especially of the muscles of respiration, constituting phenomena not unlike those which characterise some varieties of the epileptic paroxysm." Dr. Taylor says, of epilepsy, "This disease, in some of its symptoms, resembles poisoning by Prussic Acid alone."

We have found Hydrocyanic Acid curative in a case of headache, with dizziness. Our experience with it in the treatment of epilepsy, we purpose to bring forward in the next number of this *Journal.* We will only say that, hitherto, it has been most highly encouraging, and has already led us to rank this drug far above all other remedies for this disease. Several cases of cure by it in allopathic hands are extracted from *Frank's Magazine* by Hempel.

b. The tonic spasm excited by Hydrocyanic Acid is no where more marked than in the organs of respiration. This also is the general testimony of toxicologists. Taylor says: "The symptoms produced by Cyanide of Potassium are similar to those occasioned by Prussic Acid: *spasmodic respiration,* &c."; and Pereira states that, after poisonous doses, "the respiration is difficult and *spasmodic,*" and that, "in most cases, the immediate cause of death is obstruction of respiration."

The principal morbid conditions of the respiratory organs dependent upon spasm of muscular fibre are laryngismus stridulus, hooping-cough, and asthma. It is in this class of affections, next to those of the stomach, that Hydrocyanic Acid has obtained its chief reputation among the practitioners of the old school. In hooping-cough, Dr. West states, that it "sometimes exerts an almost magical influence, diminishing the frequency and severity of the paroxysms almost immediately; while, in other cases, it seems perfectly inert." He gives it in very minute doses. In spasmodic and "nervous" coughs in general, and in asthma, it has been found of much service. We shall record several cases illustrative of its value in this class of affections.

c. Through the medium of the nervous system, and especially through the pneumogastric, Hydrocyanic Acid exercises a considerable disturbing influence upon the action of the heart, as many symptoms testify.

Through the same medium, it may regulate the cardiac functions, when morbidly disturbed. Dr. Wood, the Pereira of America, writes: "In palpitation, and other irregularities in the function of the organ, of no very energetic character, whether purely nervous, or associated with organic disease, I know no medicine better calculated to alleviate the disturbance of the function, and afford ease and comfort to the patient." (*Materia Medica,* vol. ii. p. 181). Dr. Chapman suggests its use in angina pectoris.

d. General tetanic spasm is one of the most characteristic effects of poisoning by Prussic Acid.

Hydrocyanic Acid forms, with Aconite and Strychnine, the triad of drugs really homœopathic to tetanus. Pereira states, that cases of this disease have been published, in which the remedy has proved beneficial. But it is also homœopathic to tonic spasm in general, wherever occurring. Into this category fall the gastrodynia and enterodynia, for which Pereira regards it as a true specific. He, himself, states of the former affection, that "pain, of a *spasmodic* character, is the leading symptom;" and calls the enterodynia "a painful affection of the bowels, analogous to that of the stomach." Dr. Elliotson mentions the following, as the stomach affections relieved by it: "first, those in which pain at the stomach was the leading symptom; secondly, those in which the gastrodynia was accompanied by water-brash; thirdly, when the excessive irritability of the stomach produces vomiting; and fourthly, those disorders of the stomach which, in some of their symptoms, resemble affections of the heart." (*Numerous cases illustrative of the efficacy of the Hydrocyanic Acid in affections of the stomach.* 1820).

HÆMATIC.

Hydrocyanic Acid induces, as we have seen, a condition of the blood similar to that which obtains in Asiatic cholera; it is fluid, dark, or bluish black, and viscid or oily.

We cannot, from the above fact, infer the homœopathicity of Prussic Acid to this frightful disease. Dr. Russell, in his work on "Epidemic Cholera," relates a case, in which the acid gave great and speedy relief to an intense spasmodic oppression of the chest, which came on in a cholera patient. Pereira says: "I have seen Hydrocyanic Acid used with great success to allay vomiting and purging in severe forms of the ordinary English cholera, after opium had completely failed. In Asiatic, or malignant cholera, it has occasionally appeared to be serviceable.

ALLIED REMEDIES.—*Aconite, Strychnine,* and the triad of Umbelliferæ, *Æthusa Cynapium, Cicuta Virosa,* and *Œnanthe Crocata,* especially the last.

PHARMACEUTICAL PREPARATIONS.—The dilute Hydrocyanic Acid of the London pharmacopœia is a tolerably certain preparation, and contains 2 per cent. of the anhydrous acid. This, therefore, diluted with equal parts of alcohol, will form our first centesimal potency; and from this the other dilutions may be made. The Oil of Bitter Almonds may occasionally be used as a form for the administration of Hydrocyanic Acid. A pure and good oil should contain about 12½ per cent. of the anhydrous Acid.

DOSE.—We have found the 3rd decimal the most useful potency for ordinary purposes. In epilepsy, however, it may be necessary to use the 1st centesimal, in the intervals between the paroxysms.*

---

* In the next number of the *Journal*, we propose to give a series of cases of Epilepsy and other diseases treated by this drug. If any of our colleagues have had experience with it, or should be led to use it successfully in the direction indicated in the above paper, we should be greatly obliged if they would communicate to us their observations, that we may incorporate them in our series.

ON PHOSPHORIC PARALYSIS.

By Dr. Gallavardin, Lyons.*

I wish, in this memoir, to bring prominently forward one of the many *elective* effects of Phosphorus; viz., that which it produces on the muscular system—on the nerves of motion. This *elective* action I shall demonstrate by experiments on the human subject, both in health and disease. The researches which I have undertaken for the purpose have led me to discover, in allopathic literature—

11 Cases of paralysis cured by Phosphorus.
3 Cases of paralysis produced by Phosphorus.

and, in homœopathic literature—

1 Case of paralysis cured by Phosphorus.

A great number of paralytic symptoms produced by Phosphorus.

This double experimentation once more confirms the truth of the homœopathic law of therapeutics "*similia similibus*," by the aid of arguments borrowed from its adversaries as well as from its partisans.

True science is cosmopolitan, so she ought to interrogate all the schools. They are like so many different nationalities in the republic of letters; a federal republic, if there ever was one! This thought directed and fertilised the labours of Hahnemann, who, to establish his pathogenesis, completed and controled his own experiments by those of his predecessors. Thus Professor Imbart Gourbeyre was able to say with perfect truth, "Hahnemann holding forth on the properties of the medicines, is tradition itself."

I thought I could not do better than follow here the example of the German reformer; and henceforward the allopathic physicians will be obliged to act so too, under pain of repeating, at their expense, the humorous blunder of the Academy of Medi-ine, which (in 1855) innocently received, from a sea-going hip captain, the common red pepper (*capsicum annuum*) as a *ew* remedy for hemorrhoids, whereas it is in daily use by the omœopathic school for the last half century! As for those allopathic physicians who borrow from homœopathy her remedies and their indications, I advise them to borrow her doses also; or else they will expose their patients to aggravations which are always useless, or even to accidents which prove very serious, sometimes fatal, of which it would be easy to cite more than one example.

---

* From *l'Art Medical*, April, 1862.

I mean to present first the 11 cases of paralysis cured by Phosphorus; then the paralysis and paralytic symptoms produced by Phosphorus.

I.

PARALYSIS CURED BY PHOSPHORUS.

1. Paralysis (qu., of what part?) in the case of a young girl, having lasted two years; cured by Phos. administered internally. At the same time, this medicine induced menstruation—Dr. Franck, of Langsberg. Hufeland's *Journal de Medecine Pratique*, July, 1824, p. 112.

2. Hemiplegia of the right side in a young girl, in consequence of amenorrhœa. It was of several years' standing, and was cured in a week, by rubbing with phosphorated liniment (Targioci Tozzetti, *Journal de Litterature, Sciences et Arts*; Pisa, 1809).

3. Paraplegia in a Russian officer, 29 years old, cured in six weeks by Phosphorus, internally and externally (Dr. Gumprecht, *The London Med. Repository*; March, 1815).

4. Paralysis of both arms in an officer of the Russian militia, in consequence of gout, cured by Phosphorated Ointment (*Loc. cit.*).

5. Paralysis (qu., of what part?) in a young girl, cured by the aid of frictions, with a liniment containing but 1 gr. of Phosphorus. Previously, 3 grains of Phosphorus, taken in three days, removed the gastrodynia and hæmatemesis, without affording any relief to to the paralytic affection. (*Bibliotheque Medicale*, 1813. 39, 269.)

6. Paralysis of the lower extremities, and of the sphincters of the anus and bladder of a woman at Berlin, in consequence of apoplexy, cured by Phosphorus administered in Sulphuric Ether. Some time after, this patient died of a fit of apoplexy (*Bibliotheque de Therapeutie*, Bayle, vol. 3).

7. Paralysis of the third pair of cranial nerves.

8. Paralysis of the sixth pair of cranial nerves.

I quote, *verbatim*, the article from the *Moniteur des Hopi-*

taux (1858, p. 1022), in which Dr. Tavignot relates these two notices of cure.

MUSCULAR PARALYSIS OF THE EYE TREATED WITH PHOSPHORATED PREPARATIONS.

Several cases of paralysis, both of the third and the sixth pair of nerves, have presented themselves to us. Some of them are still under treatment. The method which I employ is very simple, and generally one of the most efficacious. It has, moreover, furnished me, during several years, with successful cases, in such numbers that I have no idea of despising its use in a hurry.

This treatment consists in prescribing Phosphorus internally, and also externally, by friction round the orbit. As to the external application, the following is the formula for the liniment to be used every night, making use of a piece of flannel, which is afterwards unfolded, and bound upon the forehead for the whole night:—

℞.	Nut Oil	100 grammes.
	Naphtha..	25 „
	Phosphorus	0·20 centigrammes.

Internally, I make use of pills prepared with hog's lard, in which Phosphorus has been melted. Each pill contains 2 milligrammes of Phosphorus, and I begin with one per day, proceeding gradually to three. Latterly I have, nevertheless, followed the advice of my scientific friend, Dr. Ducour, chief chemist of Lariboissiere, and have substituted the following emulsion:—

℞.	Oil of Sweet Almonds	10 grammes.
	Syrup of Gum	90 „
	Gum	2 „
	Phosphorus	0·10 centigrammes.

The bottle is always to be shaken, and a teaspoonful of the emulsion given to the patient, then two, and even three.

As a general rule, when the Phosphorus thus administered is the right medicine, it cures very rapidly, and it often does so. I cannot here report the detailed observations which will find their place in my *Treatise on the Nervous Affections of the Eye.* I shall merely say that two new facts have just proved to me still more the efficacy of this treatment. In the first case, the patient was the wife of an upholsterer, who had been directed to me by Dr. Huvée. The *paralysis of the third pair* was complete, with ptosis, external strabismus, mydriasis, &c. During two months, electricity had been employed by a brother physician, without marked result. In twenty-five days this lady was cured, under the influence of the phosphoric treatment.

The second case is still more interesting, in another point of view. A wealthy proprietor, in the country, came to Paris, to put himself under the hands of a specialist, to be cured of seminal discharges of long standing, The treatment had not yet commenced, when the patient was seized with paralysis of the sixth pair of nerves of the right eye. That specialist sent me his patient, whom I cured in eight or ten days with Phosphorus. I then made a point of sending the patient back to his first physician, to follow his advice for the treatment of the seminal discharges; but the patient avowed, to my great surprise, that, under the influence of the Phosphorus, he had been completely cured of the latter also.

Here is a fact, evidently worthy of fixing the attention of practitioners. For, unless we have to do in this case with a simple coincidence, Phosphorus may be utilized for the cure of an affection which has hitherto remained very difficult to treat.

If M. Tavignot was greatly astonished to see Phosphorus cure spermatorrhœa, sure enough the homœopaths will not be at all astonished; for daily, during many years past, they employ successfully *phos.* and *acid phos.* in the treatment of spermatorrhœa and abnormal pollutions.

9. Paraplegia, with œdema of both limbs, after typhoid fever, in the case of an aged female cured by Phosphorus.—Gauthier-Claubery *Journal Général de Medecine*, 1803, xvi. 6.

10. Paraplegia and paralysis of the sphincter vesicæ, with œdema of both limbs, after acute disease, in an infant, cured by Phosphorus.—*Id.*

11. Paralysis of the right leg, with œdema of the limb, after acute disease, cured by Phosphorus.—*Id.*

12. Paraplegia cured by Phosphorus.

In homœopathic literature, I know of only one observation of the cure of paralysis by *phos.*, it is the following, which I extract from a German journal.

Mrs. P., aged 36, was, soon after her marriage, seized with paralysis of the lower extremities. During three months many remedies were tried without result, in the hospital at Göttingen. She could not move her limbs at all, which were of low temperature and sensibility. The back was also very stiff; and at a certain part of the sacrum there was no sensibility. She often experienced a tearing and formication from the back to the legs. The other functions were normal. After two doses of Sulphur 12, she took the Tincture of Phosphorus, 2nd dilution, 10 drops every other day. After using this remedy 14 days, she could already walk with the aid of a stick, and without any other medicine she was completely cured of her malady. (Dr. Engelhard, *Allgemeine Hom. Zeitung.*)

13. Impotence, spermatorrhœa, abnormal pollutions.

May we not consider these affections as produced by paralysis of the erector muscles, of the muscular fibres, the seminal vesicles, and the ejaculating canal? If so, it is enough—for homœopaths—to recal the classic efficacy of *phos.* and *acid phos.* in such cases.

II.

PARALYSIS PRODUCED BY PHOSPHORUS.

1. *Paralysis of the Left Arm.*—Ch. E. Dieffenbach, chemist, at Biel, wishing to make experiments on Phosphorus, took, in three days, 6 grains of that substance. Strong and continued vomiturition; eructations, with the odour of garlic; spasmodic contractions; *paralysis of the left arm;* delirium. Such were the symptoms which it presented, and to which his death put an end. *Nouvelle Bibliotheque Medicale*, 1829, t. ii., p. 398; *Merat & Delens*, t. v., p. 281.)

2. *Paraplegia; convulsions; then paralysis of the erector muscles: progressive general paralysis*, produced by Phos.

J. Frank has borrowed this observation from the Treatise of Magnus Huss, of Stockholm, on Chronic Alcoholism, and has given it (p. 666) in his *Magazin für physiologische und klinische Arzneimittellehre und Toxicologie, 4ter band, 2tes heft*, Leipzig, 1853. I translate it verbally.

A man, aged 39, who led an ordinary kind of life, occupied himself for three years in the preparation of phosphoric matches. He used to work in the room where he lived, and there he kept the materials and the product of his trade. He had suffered no inconvenience from it until a year ago when a great quantity of Phos. and of phosphorated matches took fire, after a violent explosion. At the time, whilst trying to extinguish it, he so thoroughly respired the vapour of Phos., that at last he fainted from suffocation. Immediately after this, he experienced a sensation of weakness in the back, as if he were ready to sink; then weakness in the extremities, and trembling at every effort; creeping under the skin, and a sensation as if something were starting beneath the epidermis. At first, great sexual excitement, which afterwards diminished, and for the last six months gave place to impotence; absolute impossibility of erection.

Independent of that, he found himself well, with good appetite; regular evacuations; good health; normal respiration. Nothing indicated any affection of the brain. On his admission to the hospital, the following symptoms were remarked—his two legs were so weak that he could only walk a few steps, and even that he did with a tottering gait, and as if he was not sure of himself; if he tried to stand upright, his legs trembled and his knees bent; his hands and arms trembled on making an effort. In the state of repose, the muscles started out all over the body (*muscular contractions*), chiefly in the extremities, which were not painful, but sufficiently sensitive to exhibit the convulsive movements under the skin; and the muscles contracted from time to time, at various points. Sometimes nothing of the kind was visible, and yet he cried out all at once, as if a part of his body had been suddenly touched. On the left arm, constantly a feeling of formication under the skin; normal sensation over the general surface of the body. The spine not sensitive, nor painful, but so weak that the patient cannot straighten himself, nor remain standing when once straightened. The faculties, both intellectual and moral, the functions of the chest, of the heart, and of the digestive organs, normal; but the pronunciation embarrassed (paralysis of the tongue). The patient lived three or four years in the full enjoyment of his senses, whilst the paralysis increased and extended (progressive paralysis); but all the attempts at treatment were unavailing.

3. *Paralysis of the hands* produced by Phosphorus. J. Miffet, of St. Etienne-sur-Chalaronne, whom his wife had several times tried to poison with Phosphorus in 1851, did not die, but his hands

continued paralysed. (*Annales d'Hygiene et de Medecine Legale*, 2d series, 1855, t. iii. p. 157.)

A work, which I have not been able to consult, the *Journal de Chimie Medicale*, 1854, p. 330, gives the history of a husband poisoned several times by his wife, by the aid of Phosphorus; he did not die, but he continued paralysed (in what part?). I have not been able to ascertain whether this is the same case as the preceding.

III.

PARALYTIC SYMPTOMS PRODUCED BY PHOSPHORUS.

In consulting the different treatises on the homœopathic *Materia Medica*, we find, in the pathogenesy of Phosphorus, the following phenomena, which may be considered as paralytic symptoms, or, at least, as premonitory symptoms of paralysis. Hahnemann and his disciples observed them in experimenting on themselves with Phosphorus in small doses. They would probably have obtained paralytic symptoms better characterised, even true paralysis, if they had taken the *phos.* in stronger doses; but then they would have run a risk of poisoning themselves, like the chemist, Diffenbach. One might, it is true, have tried that substance on animals; but, unhappily, one could not always draw conclusions *respecting man from them.* In fact, the maladies are different in one and the other; and probably it would be the same with the symptoms and affections produced by a given medicine on the healthy organism, so that, in order to learn more completely the *paralysigenetic* properties of *phos.*, we are obliged to confine ourselves to studying, in that point of view, the accidental poisonings by that substance. For this study, I particularly invite the physicians who have occasion to visit the manufactories where Phosphorus is prepared or employed. Meanwhile, till they shall have published their observations on the subject, I enter below all the paralytic symptoms contained in the pathogenesy of *phos.* I cite them with their respective ordinal numbers, with excess of detail. These symptoms observed and reproduced by the experimentors, recal, even to an extent to be mistaken for them, the initial phenomena of paralysis as set forth by the approved authors.

1420. One hand is sometimes as if paralysed for some hours.

1436. Numbness and insensibility of the fingers of one hand.

1446. Paralysis of the fingers, which have feeling, but which he can hardly move.

1672. The hands and feet are as heavy as lead.

1683. Great weakness in the limbs during more than three weeks.

1699. After sitting down, he is as if paralysed for some minutes.

1700. He is as if paralysed, and ill all over.

1702. All the right side as if paralysed, with fits of nausea.

1704. In the morning on rising, and all day, he is as if paralysed in body and mind.

1705. Paralysis of all the limbs, in bed, which ceases on rising.

984. Stool scanty; and for all that, requiring great efforts. (*Paralysis of the defæcator muscles?*)

935. Great efforts to pass fæces, which are not hard.—(*Id.*)

955. Stool half-liquid, scanty, and not passed without effort. (*Id.*) *

Involuntary stool. (*Paralysis of the intestinal canal, and of the sphincter ani?*)

Flow of mucus from the anus, which remains always open. (*Id.*) †

1026. Violent desire to pass urine; without thirst; the urine escapes involuntarily. (*Paralysis of the sphincter vesicæ?*)

1029. Wetting the bed at night. (*Id.*)

1030. Involuntary emission of urine. (*Id.*)

1034. Not having at once attended to the desire of urinating, he passes water involuntarily. (*Id.*)

1080. Incapacity of erection at the end of about seventeen days. (*Paralysis of the erector muscles?*)

1087. Absolute impotence. (*Id.*)

1084. Pollutions without concurrence of the imagination, at the end of about eight days. (*Paralysis of the muscular fibres of the seminal vesicles and the ejaculatory canal?*)

1082. Pollution shortly after coition. (*Id.*)

1084. Pollution at night, without corresponding dreams, at the end of eight or ten days. (*Id.*)

1086. Emission of prostatic fluid during a hard stool. (*Id.*) *

---

* *Hahnemann's Chronic Diseases*, v. iii., p. 213–284.

† *Manuel Homœopathique*, Jahr.

Emission of semen without energy, and too promptly during coition. (*Id.*) *

Difficulty of opening the eyelids. (*Paralysis of the levator muscle of the upper eyelid, and a precursory symptom of paralysis of the third pair ?*)

The upper lid is difficult to raise. (*Id.*)

Dilatation of the pupil. (*Id.*) †

IV.

CONVULSIVE SYMPTOMS PRODUCED BY PHOSPHORUS.

I think it right to borrow from the authors above cited, the tremors and the convulsive symptoms produced by Phosphorus; for these symptoms, which form the habitual retinue of paralysis, equally prove the elective action of that substance on the muscular system.

311. Starting of the eyelids, which is often repeated.

312. Great contraction of the pupils.

317 } 318 } Myopia (Contraction of the four recti muscles of the eye?)

441. Convulsions in the muscles of the cheeks.

442. Convulsions in those below the right eye.

809. Convulsions of the face.

451. Startings on the right-cheek bone, removed by friction.

474. Closing the jaws, preventing their separation. (Contraction of the masseter muscles?)

718. Frequent hiccough during the day, even before eating. (Convulsion of the diaphragm?)

719. Constant hiccough. (*Id.*)

720. Hiccough after dinner, so severe as to cause a pressive and smarting pain in the pit of the stomach. (*Id.*)

982. After stool, tenesmus.

983. Violent tenesmus some time after stool.

1000. Considerable and painful spasm of the rectum in the morning in bed.

1073. Erection in the evening, without concurrence of the imagination.

---

* *Manuel Homœopathique, Jahr.*

† I could not remember the name of the author from whom I have borrowed he three preceding paralytic symptoms.

1074. Some instances of erection in an aged man, during the first seven days, then from the 29th to 43rd.

1075. Erections, day and night.

1076. Frequent erections in the night (the fourth day).

1077. Violent erections in the morning (at the end of six days).

1270. Flow of blood to the heart, with palpitations, which become very severe after a meal.

1271. Palpitations of the heart, with anxiety in the evening and the morning on awaking, in bed.

1272. Often strong palpitation of the heart.

1274. Palpitations in the morning after a common breakfast.

1275. Palpitations; two, three, or six beats of the heart, each stronger than the last, when walking or sitting after a meal. Only one or two at night, when lying on the left side.

1276. Some strong beats of the heart on the least movement, especially of the left arm, or on straightening himself in bed, or stretching, &c.

1277. Strong beating of the heart on awaking in the morning, and at night after lying down.

1748. At night, violent palpitations.

1348. Convulsions of the muscles in the neck.

1418. Trembling of the hands.

1419. Trembling of the hands in the morning.

1438. Starting in some of the fingers.

1439. Starting sometimes in the right thumb, when writing.

1440. The fingers bend inwards from time to time, as if by the effect of cramp.

1441. Weakness and starting in one finger all day.

1442. Violent startings in the little finger of the left hand.

1454. Startings in the muscles of the buttocks.

1455. Visible and painful convulsions in the muscles of the buttocks and the thigh, on one side.

1470. Stiffness of the right leg, even during repose.

1471. Tension in both legs, and pressive painful stiffness in the left.

1472. Constriction, in the form of cramp, in the two legs and feet, with startings.

1489. Trembling in the knees.

1490. Spasmodic twitching in the knee when walking.

1495. Twitching from the left knee down to the foot.

1496. Twitching in the left knee in the evening, and after each twitch a painful shock.

1508. Cramp in the calf.

1509. Cramp in the calf, and starting of the leg on twitching it, during walking.

1547. Cramp in the soles of the feet.

1548. Continual tendency to cramps in the sole of the foot and the great toes.

1550. Shocks (or jerks ?) in the feet, with formicating cramp in the soles of the feet.

1551. Instantaneous jerks in the feet.

1508. Twitching in the left great toe when sitting.

1646. Trembling in the morning, with twitching in the limbs.

1648. Trembling of the hands.

1649. Trembling of the hands so that he cannot write.

1650. Sensation of trembling all over.

1651. Trembling of the thighs, like a shivering fit.

1652. Trembling * (Lobstein).

I borrow from various authors the following symptoms which *phos.* has produced in animals, or the human subject in health.

"His muscular powers are doubled." (Alphonse Leroy Bouttatz).

"It augments muscular irritability." (Fr. Pilger).

"It destroys muscular irritability in frogs." (Giulio of Turin).

"It produces trembling of the frame, frightful convulsions and annihilation of the vital powers" (*Ibid*).

"In the greater part of the Phosphorus poisonings, we see death preceded by very strong convulsions, sometimes with delirium in man, and vertigo in animals. (Hahnemann, *Chronic Diseases*, v. iii., p. 213—284).

Phosphorus exercises an elective influence on the muscular system, even in animals belonging to most dissimilar classes, *e.g.*, in quadrupeds, and in batrachians To demonstrate this, I am going to borrow the report of experiments made on them, from the German journal, *Schmidt's Jahrbücher*, 1861, b. cix., p. 172. Professor Mayer has experimented with Phosphorus on rabbits, dogs, cats, rats, and frogs, causing them to absorb that substance by the stomach, by the cellular tissue, or by wounds. Amongst other results, he has obtained those which he sums up in the following manner: Phosphorus acts specifically on the nerves of voluntary motion, and on the muscles themselves. It impedes, diminishes, and at last entirely destroys the power of movement, or rather it destroys the irritability of the motor nerves, the contractility of the muscular fibres, and at last completely paralyses the powers.

---

* *Hahnemann's Chronic Diseases*, v. iii., p. 213–284.

Phosphorus acts equally on the nerves of involuntary motion, on the muscular system of the heart and chest. It retards the pulsations, disturbs the normal rhythm of the heart, and even completely suspends its beating; so that this viscus becomes gorged with blood. It acts on the respiration, by paralysing the motor nerves of the thorax and diaphragm, in such a way that the lungs too are distended with blood.* In consequence of this diminution, of this weakness, of this ultimate abolition of the beating of the heart and of the respiratory movements, there results such a lowering of temperature, that (the physiological calorification being suspended) the animal dies benumbed, insensible, and stiffened, as in death by frost.

The Phosphoric and Phosphorous Acids are less active than Phosphorus; yet they are like it in weakening and paralysing the motor nerves, and the movements of the heart and chest.

PARALYTIC SYMPTOMS PRODUCED BY PHOSPHORIC ACID.

I have consulted the pathogenesy of Phosphoric Acid, which presents a certain analogy with that of phosphorus. That is my reason for extracting from it the following symptoms.

Hemiplegia. †

644. Rheumatism of the thighs, which hardly allows one to drag oneself along, especially after sleep.

721. Rheumatism in the hips, the arms, the thighs, and the

---

* This would explain and confirm the homœopathic indication of Phosphorus in pneumonia generally, and especially in the *false* pneumonia of typhoid fever.

† *Homœopathic Manual*, Jahr.

nape of the neck, with tearing, shooting pains, especially on going up stairs, and beginning to walk.

719. Contusive pain in the hands and feet, which are as if paralysed.

734. Weakness, physical and mental.

735. He thinks he totters in walking.

737. Weakness and dejection.

738. Extreme feebleness in the morning on rising, with paleness.

739. Lassitude all over the body.

147. The eyelids are heavy, as if they were going to close.

151. Pressure on the right eyelid, with a sensation of weight.

190. Dilatation of the pupils at the end of three hours, and lasting six hours.

192. Enormous dilatation of the right pupil (instantly).

193. Pupils very much dilated (in 8½ hours).

403. Stool requiring great efforts, though it is not hard.

474. During coition, the erection continues without emission.

473. Frequent pollutions.

472. Discharge of semen on making efforts to relieve the bowels.

427. Abundant discharge of watery urine, which he often finds it difficult to retain.

Frequent and irresistible desire to urinate.

VII.

CONVULSIVE SYMPTOMS PRODUCED BY PHOSPHORIC ACID.

185. Quivering of the lower eyelid, towards the inner angle.

187. Dilatation at first, then contraction of the pupils during sixteen hours.

188. Closing of the pupils during several days.

189. Closing of the pupils without alteration of the sight.

194. Myopia in conversing, reading, and writing.

196. Increase of the myopia.

197. At more than six paces, all objects appear surrounded by a mist.

413. After stool, prolonged tenesmus, without pain in the bowels.

423. Tenesmus in the urethra and rectum.

419. Retraction of urine for the first seven hours, then frequent urination, but less copious than usual, with burning in the neck of the bladder.

420. Desire to urinate, with scanty discharge.

468. Erection without any cause.

471. Violent erection without desire.

508. Painful spasm of the chest and diaphragm, which comes on suddenly, and prevents him from sitting or standing upright.

568. Spasmodic quivering of the muscles of the right side of the neck up to the eye, on turning the head.

570. Painful stiffness of the muscles on the left side of the neck, extending to the head.

582. Muscular twitching in the arm, which is stopped by movement.

609. Cramp-like pain in the fingers of the left hand.

627. Spasm in the hip-joint, with rheumatic pain in the whole thigh; insupportable when sitting.

648. Pulsative, painful quivering from the middle of the thigh down to the knee.

657. Spasmodic tearing in the leg, which, in the day, obliges him to get up; and at night, to change the place of the limb every instant.

667. Spasmodic quivering in the left calf, which ceases for a time on rubbing.

670. Spasmodic pains in the feet brought on by movement.

720. His limbs are, as it were, *smitten* with contraction.

722. Muscular quiverings here and there, especially in the legs.

CONCLUSION.

If we analyse the observations on paralysis in the various forms above quoted, we may say, in the way of recapitulation, that we have seen phosphorus cure 16 cases of paralysis, to wit :—

1 Paralysis of the third pair of cranial nerves.
1 „ „ sixth pair.
1 „ „ sphincter ani.
2 „ „ sphincter vesicæ.
1 Hemiplegia.
2 Parslysis of both arms.

5 Paraplegic cases.

2 Paralysis (the precise seat not indicated).

1 Paralysis of the right leg.

And, on the other hand, we have seen Phosphorus produce, in the healthy human subject, six cases of paralysis; viz.:—

1 Paralysis of one arm, 1 paraplegia.

1 Paralysis of the erector muscles (impotence produced by priapism).

1 Partial paralysis of the tongue.

1 Progressive paralysis, general, with preservation of the intellectual faculties.

1 Paralysis of the hands.

Besides a great number of paralytic symptoms, which would probably have become complete paralysis, if the experimentors had thrown in a stronger dose of Phosphorus.

Now, the reader will, undoubtedly, be persuaded that *phos.* exercises a well marked elective influence on the muscular system. All the above cited observations must have shown him, moreover, that this medicine has caused, and probably will cause, in the sick, paralysis, similar or analogous to those which it produces on the healthy.

From the clinical and pathogenetic experiments hitherto known, I believe one may conclude that Phosphorus, when it shall be otherwise indicated by the totality of symptoms, according to the law of similitude, it may be employed successfully for:

1. Complete or partial paralysis of the third pair; meaning by "partial" that which presents one only of the following symptoms: which, when united, constitute complete paralysis.

External strabismus (paralysis of the right internal muscle).

Dilitation and immobility of the pupil.

Falling of the upper eyelid.

Abolition of the rotatory movement of the eye.

Diplopia (as soon as the patient leans the head to the side opposite to the paralysis).

2. Paralysis of the sixth pair, *i. e., internal* strabismus.

Paralysis of the right internal muscle; a paralysis so rare, that the anatomist, M. Sappey, has found but two cases cited in medical literature; one by Yelloley, the other by M. Jobert.

We have, above, reproduced a third case, observed by M. Tavignot.

3. Paralysis of the tongue, especially when it seems to be a premonitory symptom of general progressive paralysis.

4. Paralysis of the arms, hands, and fingers.

5. „ „ sphincter vesicæ.

6. „ „ sphincter ani (involuntary stools in infants and old people).

7. Hemiplegia.

8. Paraplegia.

9. Sexual impotence, spermatorrhœa, and abnormal pollutions (paralysis of the erector muscles, the muscular fibres of the *vesiculæ seminales*, and the ejaculatory canal) especially when there has been previous priapism—venereal excesses.

10. Progressive general paralysis.

According to the law of similitude, or analogy, Phosphorus appears to me to be also indicated for—

Paralysis with œdema of the parts affected (Gaultier Clanbery has cured three cases of this kind).

General weakness which, proceeding from sexual excesses, announces premature old age, or an approaching lesion of the spino-cerebral substance.

Muscular weakness in children who are long in learning to walk; especially when there exists along with it habitual diarrhœa, and respiratory affections.

Weakness, consequent upon various hæmorrhages (hæmoptysis, metrorrhagia, &c.), even when there exists the delirium so common after violent hæmorrhage.

Mentz, founding his opinions on the application of *phos.*, in continued fever, with depression and absolute debility, says it would perhaps be desirable to try this medicine in paralysis (see the seventh observation of his dissertation, in the collection of *Haller's Theses*, t. vii.) That hypothesis of Mentz seems to be, historically, the starting point of the employment of Phosphorus in paralysis.

Besides the authors above cited, Phosphorus has been also employed for paralysis by Sedillot, Poilroux, Gerdy, Gardessus, Cruveilhier, and, it would seem, for paraplegia, by Brera, whose work I have not been able to consult: *Riflessioni medico-pratiche sull'uso interno del fosforo, particolarmente nell' emiplegia*, 8vo., 1798. At the epoch of its discovery, Phosphorus was employed often, and with success, for very different diseases. What caused it to be almost entirely rejected from officinal medicaments was the numerous cases of death caused by its administration in too strong doses; some of which are reported by Weickard, Zepler, Brera, Hufeland, Louth, Vorbe. On this ground also we reject equally all the heroic medicines, mercury, arsenic, &c., which certain practitioners make it a point of honour, in the eyes of their patients, never to employ! To those practitioners, Imbart-Gourbeyre wishes, with good reason, a little less conscience, and a great deal more science.

In fact, if one wishes to utilize the properties of a medicine, and to avoid its inconveniences, it must be given in small doses. When we have a mind to diminish the effect, we diminish the dose: this is logical. Let not, therefore, a false respect for their fellow creatures prevent the physician from employing the most attenuated doses, be they even infinitesimal. This is particularly the case with Phosphorus. "This medicine," says Löbenstein-Löbel of Jena, "administered in the small quantity of ⅛ of a grain (6 millegrams) has speedily put an end to a lunatic." Is not this fact eloquent enough to justify the employment of the infinitesimal doses?

Besides the experiments with this substance, on healthy animals and man, might, *a priori*, lead us to foresee the advantage of the small doses, and the danger of the strong ones. In fact, if we administer small doses of Phosphorus, the muscular powers are doubled (A. Leroy, Bouttatz), the muscular irritability is increased (Fr. Pilger). If it is given in too strong doses, the muscular irritability is destroyed (Giulio of Turin), and there ensues general weakening, convulsions, paralysis, even death itself, as is proved by the history of poisonings by that substance.

When, therefore, we wish to attenuate the effects of Phosphorus, we have simply to attenuate the dose. To attain this end, it does not suffice to mix it with correctives. In fact, where the corrective reacts chemically on the Phosphorus, it transforms it into a new substance; and, thenceforward, it is no longer Phosphorus that you administer: or, perhaps the corrective alters, masks, neutralises the effects of that medicine. In that case, it is as well not to give any Phosphorus at all; for one cannot say to the corrective, "You shall prevent the Phosphorus from producing *this* effect, and you shall allow it to produce *that*." Who, then, knows the science of antidotes in order to arrive at such results?

The physicians who administer each remedy escorted by *correctives, adjuvants, directives*, &c., assimilate a medical prescription precisely to a parcel of letters sent to the stomach; a kind of postman, charged with getting this new kind of messages to their respective destinations. Poor stomach! Phosphorus is especially indicated when the progressive paralysis exists with the intellectual faculties preserved; when it has had, as a precursory phenomenon, hypochondriasis; and, as an exciting cause, chagrins, vexations, morally depressing affections.

Phosphoric Acid will be indicated in preference for progressive paralysis with *alteration of the intellectual functions*, consequently for the general paralysis of lunatics.

A German homœopath used to tell me, some years ago, that his colleagues were employing efficaciously, for softening of the brain, Phos. in low dilutions, for two, four, six weeks without interruption.

In Germany, as in France, the organic school have invented the disease, *lesion.* They thus consider, as a disease, the softening of the brain, which is a symptomatic affection (*locum affectum*), a lesion common to several maladies, such as gout, syphilis, piles, &c.

An over-excited life, the abuse of intellectual labour, sexual excesses, violent or long continued chagrins, absorbing or painful pre-occupations, may, in consequence of continued cerebro-spinal tension (*ubi stimulus, ibi fluxus*), it is true, produce softening of the nervous centres, a lesion so common in our day that one may consider it in a manner as forming an integral part of the medical constitution of the nineteenth century. But the various causes above-named only act in the capacity of *objective* exciting causes; they rouse the individual temperament, *the* predisposing *subjective* cause, and induce a settling upon it, and especially on the cerebro-spinal system, one or other of the lesions which are peculiar to it.

We admit it then, the softening of the brain is not as it is generally called, a disease; it is merely a sympathetic affection of several very different diseases. I might make exactly the same remarks on a class of lesions which, in our days, are as common amongst women as the cerebro-spinal affections are amongst men. I mean affections of the uterus—affections which are symptomatic to chlorosis, scrofula, syphilis, but which are diagnosed and treated, unfortunately, as true diseases.

The organic school, who, for half a century, have had so pernicious an influence on the medical body, have introduced disorder into the medical world, by confounding a part with the whole, the symptoms and lesions with the diseases. If chaos actually exists in scholastic therapeutics, it is no less manifest in nosography; and it displays itself boldly on the covers of books, under the titles, INTERNAL PATHOLOGY, EXTERNAL PATHOLOGY, as if there were *internal* and *external* diseases!

There are internal and external symptoms, lesions, affections but not diseases: seeing that disease is an unnatural state of the *entire man (totius substantiæ)*—a *symptom*, an unnatural state of the *functions*—a lesion, an unnatural state of the *parts*. A *lesion*, accompanied by symptoms constitutes an *affection.**

I take the liberty of recalling to my readers these elements of general medicine for two reasons: first, because they are not always found in "classical" books so called; in the second place, I fear that the clinical and pathogenetical experiments reported above may induce some physicians to employ, after the example of certain German homœopaths, Phosphorus as a sort of specific for softening of the brain. I was desirous, before hand, to dissuade my professional brethren from it. With this view, I have endeavoured to shew them that this affection proceeds from very different diseases, presents indications not less different—indications which one single remedy evidently cannot satisfy. In advertising a medicine, one must prevent the irrational use of it, lest failures, repeated too often, should cause it to fall speedily into discredit; also, lest Phosphorus and Phosphoric Acid should be employed indiscriminately for paralysis, I wish to show here, if I can, the special indications for one and the other, after the law of similitude. With this view, I mean to exhibit, in a synoptic table, the difference of their sphere of action—of their elective properties. These two remedies having different features, will necessarily present a very distinct physiognomy: henceforward, there will be no longer even a pretext for confounding them in their therapeutic application. I need not say that the study of their resective pathogenesy will give a much more complete idea of each than the following table:—

---

* These simple and perspicuous definitions are taken from the writings and teachings of Dr. J. P. Tessier. See his *Etudes de Medecine Generale*, and his numerous articles in the *Art Medical.*

PHOSPHORUS.	PHOSPHORIC ACID.
Elective actions numerous, and more pronounced.	
Congestive symptoms more frequent and marked; particularly in the head and chest.	
Cephalic, thoracic, and dyspeptic symptoms more numerous and characteristic.	
Hæmorrhages, by all the passages; by wounds and cicatrices—by the anus—by hæmorrhoids, and the uterus; epistaxis, hæmatemesis, hæmoptysis	Epistaxis.
Œdematous puffing of the feet, hands, face, eyelids, particularly the upper lid	Œdematous swelling, only of the lower eyelid.
Febrile symptoms (shivering, heat, perspiration) more frequent and marked.	
Paralytic symptoms more numerous, and better characterised.	
Greater sensibility to moral causes, especially hypochondriasis; preservation of the intellectual faculties	Alteration of the intellectual faculties.

Seeing Phos. produce in healthy persons, on the one hand, various paralyses (amongst others, hemiplegia, complete or partial); and on the other hand, hæmorrhages taking nearly every possible direction, I am led to infer its relative efficacy for hemiplegia, and other paralysis, consequent upon cerebral hæmorrhages. My inference, moreover, is justified by the sixth clinical observation, which reports the history of a woman, in whose case Phos. cured paralysis of the lower limbs, and of the sphincters of the anus and bladder, which followed an apoplectic attack. I invite my professional brethren to administer, in like cases, that same remedy (perhaps preferring the low dilutions) when it shall be otherwise indicated by the ensemble of symptoms. For, to the pathologic concrete state, one must always oppose a medicinal concrete state as similar as possible.

Coindet is the first that employed Phos. in apoplexy. He professes to have seen magic effects produced by it in the apoplectic cases, "whenever the symptoms were due to a spasmodic state, perhaps situated elsewhere than in the brain, and acting *there* only by sympathy."

Coindet, without doubt, means by this, that Phos. is efficacious in paralysis consequent on apoplexy, especially where there exist in the paralysed parts twitching and muscular contractions. That particular indication is, in fact, confirmed by the pathogenesy of this medicine such as we have quoted it above.

Phos., which produces in a healthy person, on the one hand, urine, with whitish sediment (albumen ?); and on the other hand, œdema of the upper parts of the body (hands, face, eyelids) appears to me, for that very reason, indicated for albuminuric paralysis. It might also be employed for puerperal paralyses, whether symptomatic of Bright's disease or not, especially when they have been preceded, or are accompanied by uterine hæmorrhage.

According to the law of similitude, Phosphorus is also indicated for chlorotic paralysis, when there is puffiness of the flesh, and particularly, with a pale yellowish face, puffed especially about the eyes.

In conclusion, I have a lively hope that this brief notice may awaken the attention of physicians, and lead them to inquire whether the working people who handle Phos. and Phos. Acid do not present some phenomena peculiar to the muscular system, such as tremblings, convulsions, paralysis. If it be so, let them be so kind as to publish the results of their observations, and then one may, by the aid of these fresh documents, make a good monograph of the phosphoric paralyses.

SUPPLEMENT.

ELECTIVE ACTION OF PHOSPHORUS ON THE NERVES OF SENSATION.

We have seen Phosphorus act in a peculiar way on one part of the cerebro-spinal system. Before we quit that region, and by way of finishing this notice, I feel bound to point out further the elective action of the same remedy on another part of the nervous system, viz.: the nerves of sensation. For this purpose, it suffices to cite the testimony of the following authors:—

Professor Mayer, after having experimented on various animals (quadrupeds and batrachians), concludes that Phosphorus acts specifically on the nerves of sensation: it destroys sensibility, by destroying from the periphery to the brain, the *sensorium* being in a small degree disturbed.

Von Bibra and Geist report, amongst others, the case of a girl of 19, who was attacked with necrosis, after working for two and a half years in a chemical match manufactory. Besides the local accidents of the necrosis, the patient presented a complete absence of pain and of sensibility in the *velum palati.* (*Die Krankheiten der Arbeiter in den Phosphor-zündholzfabriken,* obs. 6, p. 137. Erlangen, 1847).

The *Materia Medica Pura* of Hahnemann contains a certain number of symptoms observed in health, which equally prove the elective action of Phosphorus on the nerves of sensation. To avoid too frequent repetition, I sum up the symptoms as follows:—

Exaltation of the general sensibility.

Derangement of all the senses, especially the hea

smell, and of the sexual instinct, as occurs sometimes in

Visual sensibility: inflammations; diminution and

[illegible], [illegible], appearance of sparks in the d

[illegible], amaurosis.

Tinnitus, inflammations, and total loss of the hearin

Dryness, diminution, total loss of taste.

Diminution of the sense of smelling, especially for ba

Diminution and total loss of the sense of touch,

[illegible] and numbness in the limbs.

Itching over the whole body, or only on some spots

Itching on the hairy scalp.

Pain in the bones of the jaw and face.

Very frequent toothache.

Headache over almost every part of the cranium,

[illegible] form of the remittent or intermittent type,

[illegible]

Pain in the palate. (Von Bibra & Geist.)

Pain in different parts of the chest, in the cardiac r

Pain in the stomach, intestines, anus, hemorrhoids,

Pain in the loins and sacrum.

Pain, with a sense of formication or numbness in

[illegible], which we have above shown to be affected wi

[illegible], and paralysis, complete or incipient.

Pain in the limbs and joints.

Phosphorus provokes, in the healthy subject, sym

[illegible] numerous and better characterised than Phosp

[illegible] the latter produces one which is peculiar to itsel

[illegible], a pain on the periosteum of all the bones.

All the symptoms of Phosphorus and of Phosp

[illegible] to the sensorial or tactile sensibility, full

[illegible] employment in homœopathy of those tw

[illegible] they are otherwise indicated by the totality

[illegible] for deafness.

Photophobia, amblyopia, amaurosis.

[illegible], preceded by excess of sexual excitem

[illegible], or loss of taste.

[illegible], rheumatic, arthritic pains.

[illegible], assuming various forms, and variously

A FEW OBSERVATIONS ON BELLADONNA AS A UTERINE REMEDY, WITH CASES.

By Dr. LIEDBECK, of Stockholm.

THE name, *Belladonna,* indicates the effects produced by this drug; which, in large, even poisonous doses, produces high-coloured cheeks, and a kind of amorous expression, with either lively or languishing expression in the eyes (erotic or torpid uterine affection). Just as the periodically recurring activity of the uterine system, with increased or decreased transmutation (mauserung) we find also something similar in the *physiological action* of Belladonna, as Böcker has proved in his *Beiträge zur Heilkunde,* 11, 1849, with experiments, the best hitherto known to exist. As nearly related to this subject belongs the observation of Bretonneau and Trousseau (*Zeischrift für Erfahrungsheilkunde,* t. iv. p. 12, 1848), that vomiting, depending on the gravid state of the uterus, has speedily been cured by Belladonna, externally employed. The same effect has been obtained by its internal use, according to the observation of homœopathic physicians, in this respect, the first and most original I know of, and which I acknowledge in the same manner as I acknowledge the great originator of the homœopathic treatment to be our common master, the founder of homœopathy.

Besides the group of symptoms, in women, of Belladonna, viz.: painful burning of the genital organs, redness and swelling of vulva, increased or diminished menstrual discharge, accidents of abortion, pressure, as if everything would pass through the genitals, with expansion of the abdomen; after this pressure the abdomen contracted itself with a secretion of white mucus from the uterus (see Hahnemann, Roth, M. L. Noack, H.A.M.L., 1) proving the uterine effects of this remedy. Still more light has been brought to bear on the subject, through the experiments of the American homœopathists, who have reproduced and again confirmed what Noack (H.A.M.L., 227) in 1843, had shown of the physiological action of the remedy: the appearance of filling of milk in the mammæ, in non-pregnant women, galactorrhœa, &c. I have, myself, seen in practice the reappearance of milk where it had disappeared, from frictions with the fresh juice of Belladonna.

Furthermore, a homœopathic physician has declared he would no longer practise midwifery if he were deprived of the use of Belladonna. (Either Schrön, or perhaps an Austrian, Dr. Mayerhofer, I cannot remember at present, as it dates as long ago as the time when the Hygea existed). To this category belongs also Mayerhofer's plaster for calming the after-pains and spasms after turning. Extract. Belladonnæ gr. x, with Butyrum or Axungia ℥j. (see *Allg. Repert. d. Medicin. Jouralistik,* 1841). I have, however, learnt, in a practical way, a more extensive use of Belladonna, as a uterine medicine, from *Allg. Homœop. Zeitung,* vol. 51, No. 22, p. 176, in an article extracted from a so-called allopathic journal,* the *German Clinic,* (Goschen and Dr. Baur, of Tübingen).

The following are my extracts from the *Allg. Hom. Zeitung,* l. c.: "For *uterine pains from deviation of the normal position of the uterus; cramp and pains in pelvic organs, hysteria,* and abnormalities in the menstruation, *leucorrhœa, sterility, constipation, and consequent uterine affection,* has been used with the best results, Unguentum Belladonnæ, *Ph.* Würtemb., three times a day, one tea-spoonful rubbed in, and only for *three consecutive days,* even in chronic cases with *prolapsus uteri, hæmorrhages,* painful swelling, pressure, tension; *pressure on the uterus, bladder,* rectum, sacrum, even *down on the thighs, profuse menstruation, acute pains in the abdomen,* especially boring and *pressure, difficult and painful evacuation,* disturbed digestion, even in two cases of typhus."

I have, myself, observed *in praxi* all the symptoms in italics more often cured by the use of Belladonna than by any other remedy known to me. I had before, in similar cases, led by the symptomatology of the remedy, and by reported observations of other homœopathic physicians, used Belladonna 3-30 internally, but not with the same degree of success.

---

* I say purposely the "so-called" allopathic, because I have never found (unless exceptionally) any *acute* physiological Belladonna symptom as a consequence of the use of the plaster, unless sleeplessness and generally a cessation of the pains, which also sometimes happens from Belladonna 3 dec.

I have not yet observed any allopathic action from the unguentum Belladonnæ, when used on the skin, but stronger action when introduced in *ano,* when I have sometimes observed enlargement of the pupils the following day—though this only exceptionally in one or two cases. *Exceptiones firmant regulam.*

Now, a few words on my method of employing the Unguentum Belladonnæ. I have searched for it in vain in an old edition of *Pharmacopœia Würtembergica.* It is well known that this pharmacopœia is one of the most complicated that exists; I do not know whether the latest edition is improved with simplified formulæ, but I take it for granted as quite impossible that it can be worse than that old *Pharmacopœia Würtembergica,* which I have read, with its theoretical compositions, *jusqu' à crever.* I suppose, therefore, that the new pharmacopœia, even in Würtemberg, has not quite remained without the pale of the influence, even though unconsciously, of the simplicia of Hahnemann and homœopathy, somewhat modified perhaps by the doctrines of Rademacher, and by the labours of the celebrated, but nevertheless deposed, Professor Carl Rapp, of Tübingen.

In taking all this into consideration, I have, from the chemist here, in Stockholm, prescribed my ointment à la Baur, to the best of my knowledge, in the spirit of the *Ph. Würtembergica,* viz.:—

R Extract. Belladonnæ,
cum Fol. pulv. et Rad. pulv. aa. ℈ iss,
Butyr. rec insal., ʒ iss. a ijes.

Conterendo mortario marmoreo probe depurato f. l. a. unguent. equabile.—Dr. S. Baur's ointment—To rub one teaspoonful, night and morning, according to prescription.*

---

* During the winter, when the butter is hard, and more difficult to prepare in the mortar, it has happened occasionally that a chemist usually trustworthy, prepared the ointment with Oleum Olivarum, contrary to my ordination. The ointment became certainly more lubricating, but not so powerful (nay, even quite inactive in one case) as when prepared with

This prescription has consisted in having the ointment rubbed in with the hand, or rather both the hands of the patient, on the abdomen, and below the navel, from hip to hip, as well as the whole of the thigh, on as large a surface as possible, till the ointment has quite disappeared. Besides, I have ordered the skin to be well cleansed from the ointment before each renewal of its application, which should take place morning and evening, before dressing and after undressing.

I give here a few extracts from my case book; it would be easy to give many more were I not afraid to fatigue the reader, especially as my annotations, entirely from private practice, are not so readily, nor so exactly made, as may be done in hospital practice.

Miss St——lm, aged 43, with light complexion, thin, blonde hair, and blue eyes, rather tall, tolerably well preserved for her years, sent for me in the commencement of 1861; she lived in the country, about two miles from Stockholm. It was almost impossible for her to be out of bed, as no sooner was she in an erect position, than severe pains affected her, with weight and pressure in pelvis, tenesmus, and straining as to a motion; she has less pain in a lying posture, but enough to keep her awake at night: strains to pass water and to go to stool without results. Fever—pulse 100, irritable.

It was not till I positively declared that I neither would nor could prescribe for her, that a manual examination was permitted. I found, then, the orificium uteri situated so far backwards that it could scarcely be reached with the finger. To the feel it seemed like a transversal fold on the uterus, which had a globular form—the mucous membrane of the vulva was rather pale, and rather hot, whilst the hands and feet felt quite cold.

I gave Belladonna, three drops, but without any amelioration, till six to seven o'clock in the afternoon, and it was not till the Belladonna Ointment had been rubbed in, about nine

butter. I have no experience as to whether Axungia can be used instead of Butyrum, but believe it to be better than oil, though not so good as butter. I leave this to others' experience. Should any one know this better, I shall be quite ready to profit by the lesson.

o'clock, that the patient felt easier, and had a tolerable good night.

The improvement continued, so that the patient could remain out of bed after three days were over, and was able to come and see me in town before the week was ended. She said she could not have believed in so sudden relief as I had foretold her.

On the 23rd of January, she came to me again. She felt feeble, and had some pain; but in no way to compare with her sufferings on the evening of my first visit. I found the palate pale, like a sheet of paper; the urine was alkaline. This, as well as other circumstances, decided me to give Ferrum Carbonicum ℈j., one pinch, morning, noon, and night. She felt better after she had this medicine. The heat was much diminished, and the urine of acid reaction, when I tested it on the 4th February. I was then told that the periods, which had commenced at her 14th year, had disappeared since 1840. I prescribed again the Belladonna Ointment, which, having been repeatedly applied, completely cured the old maid, who is now luckily married since the commencement of the summer.

Case 2.—An unmarried servant, aged 30, with light hair, blue eyes, and oval face, and rather strongly built, suffered excruciating pains in the pelvic region, when lying on her back. She had great difficulty in getting rid of her excreta. She visited me on the 11th May, 1841, and I found her sufferings depending on *retroversio uteri* to such a degree, that the os was turned against the symphisis pubis; corpus uteri was pressed against the anterior aspect of rectum; os uteri was not round, but oblong. The rugæ abdominales, and other signs, made me ask if she had not been pregnant, which she acknowledged. The mucous membrane of vulva was bright red and clitoris in a state of erection (erectio feminina) from pain, as the patient expressed herself—"it swells when I am most suffering; otherwise, it is not felt, except when passing the urine, which often is difficult." I prescribed the triplicated Belladonna Ointment to be rubbed in, morning and evening, one teaspoonful, as above; and told the patient to come again in three days, when I hoped to find her free from pains. I advised her besides to pass the urine every hour, or at least every other hour, and to see that the bladder was well emptied. Besides, I recommended her to sit at the exoneratio alvi bent forwards, with the elbows on her knees; and to walk like a soldier, with the chest out and the stomach in, so that she might get the lumbar region as much hollow as possible. This is to facilitate machanically the return of the uterus to its normal position.*

After having used the ointment for three days, the patient, as agreed, visited me again. She was then nearly without any pains; nay, as she expressed herself, with joy and satisfaction beaming in her face—"Quite another being to what I was before." She submitted, notwithstanding, to a new examination, and I found the os had so much altered its position that it was in a quite normal position. She came again on the 1st of June, perfectly well, and tendered me, of her own accord, as a fee, the fourth part of her yearly salary, "as a mark of her great debt of gratitude."

Case 3.—Anne Christina S——g, a servant, suffered from cutting pains in the stomach; leucorrhœa, in some degree; difficult and hard stools. She felt better in a lying posture than when she was up. When I first saw her, on the 23rd August, 1861, she had had leeches applied by an experienced and examined midwife, Mrs. H——g, under the use of the speculum; accordingly, either on the vulva or os uteri. She became rather worse, instead of better, afterwards, and felt, in standing, a pressing weight downwards. In the morning, and in a lying posture, as well as during her periods, she felt somewhat relieved.

At my examination I found the os only one inch within the vulva; os tincæ thin as the end of a finger, with the os turned forward; rectum felt full of scybala.

---

* It is possible that, besides the mechanical manipulation under such circumstances, a kind of ideo-magnetism from the hands of the patient occurs, and assists to help it to improvement. Super sceptici may take all this into account, but, for my part, I am, with Dr. Baur, satisfied as well as the patients, of the good effect of the external application of the Belladonna Ointment. In conclusion, permit me an anatomical observation in this case. I have never so clearly, as in the present case, observed the form and situation of *clitoris cum frenulo suo*, in accordance with what Professor Kobelt in Freyburg demonstrated to me (1844), on his injected preparations, and which he has described in his master-work, *Die Wollustorgane*, &c.

I prescribed ℞ Extract. Belladonnæ, cum Fol. & Rad., aa. ℈js.; Butyr. Rec. Insal., ℥ ijss. f. l. a. Unguent. æquabile; D. S., to rub in one teaspoonful, night and morning.

On the 28th August, when she came again, she reported that the costiveness was cured, and the pressure and bearing down pains were diminished. I found the os tincæ half-an-inch higher, according to my feel. She felt increased sensitiveness to cold, which she attributed to the ointment, which, according to Böcker's experiments, depends on the increased transmutation of tissues from the effects of Belladonna.

The general improvement was apparent in the patient's expression of countenance, but was not described by the patient so energetically as in the two previous cases, or as I had found in other patients. I told her, accordingly, to introduce in ano of the ointment, as much as the size of a nut, and to come again in three days. The patient having experienced no improvement from this application, I had recourse to the ointment, with some result, though not to my entire satisfaction. I gave, therefore, on the 9th September, Belladonna, 3, glob. j. morning and evening.

12th Sept.—The patient feels herself much better. She continued with this prescription till the end of the month, when she felt quite well, though I could not find any alteration in the abnormal position of the uterus. I advised her to avoid carrying heavy weights; to walk with the loins drawn in (hollow back); empty the bladder every two or three hours, whether there was a call to do so or not. Though not quite cured, she was, at least, free from pain, and could perform her duties as a servant.

REVIEWS.

Zeitschrift des Vereins Homœopathischer Aertze Oesterreichs. Redigirt von Dr. M. Eidherr. Erster Jahrgang, Erster Band. 1 Heft. Wien: 1862. Druck von Ludwig Mayer.

Journal of the Austrian Society of Homœopathic Physicians. Edited by Dr. M. Eidherr. First year, first volume, first number. Vienna: Ludwig Mayer.

We have never hesitated to allow to our Austrian colleagues the first rank in the march of progress of homœopathy, both from the talent and zeal of the individual members of their body there, and from their unrivalled opportunities of hospital practice. We therefore welcome with great interest the appearance for the third time, after the two interruptions, of a periodical devoted mainly to those original observations in practice and Materia Medica, for which the former works of the Vienna Society were distinguished. The plan of publication of the present periodical is different from the last, and resembles the first in the fact that the numbers are not to come out at fixed periods, nor of fixed size, but according to the quantity of important matter that may be furnished. This plan we can testify has its advantages, and might be adopted by we dare not say how many periodicals, without detriment to the readers.

The greater part of this present number is occupied with the subject of the comparative utility of the 3rd, 7th, and 15th dilutions in inflammation of the lungs. The subject is examined in the most complete manner that has hitherto been attained, and all possible disturbing causes have been considered. It will not be concluded till next number, and then we propose to go into the details. In the meantime, we may state one remarkable result, viz., the average number of days' illness for each patient was as follows:—

For those treated with the 3rd dilution, 19·5 days; 7th dilution, 14·6 days; 15th dilution, 11·3 days.

Klinische Erfahrungen in der Homœopathie, eine vollständige Sammlung, &c. &c. Von Th. J. Rueckert, Prakt. Arzte in Herrnhut. 4 vols. Dessau, 1854-61.

Homœopathic Clinical Experience; a Complete Collection of all the Cures and Practical Observations that have been Published in Germany from 1822 *to* 1850. By Th. J. Rueckert, M.D., Herrnhut. 4 vols. Dessau: 1854-61.

The completion of this very useful cyclopædia of homœopathic therapeutics as exemplified in clinical experience, deserves to be recorded as the most important literary achievement that homœopathy has to show for many years past. The labour and skill exercised by Dr. Rüeckert in his stupendous task no one who has not attempted to collect and abridge the recorded cases, illustrating some group of diseases, can form an idea of. What some of us have endeavoured to do for a particular class of diseases, Dr. Rüeckert has effected for all diseases. He has executed his task in so complete and exhaustive a manner as to leave nothing to be desired. If some maladies are but scantily illustrated, the fault is not Dr. Rüeckert's, but of the deficient literature of the subject, and the poverty of the records of our literature.

The various monographs published by Dr. Peters, of New York, on headaches, diseases of the eye, female derangements, &c., which are founded on the corresponding chapters in this work of Rückert's, will give the English reader some notion of the vast amount of research and labour entailed on Dr. Rüeckert by the task he has imposed on himself.

The work consists of four goodly octavo volumes, containing eighteen divisions, corresponding to the parts and functions of the body, in the order of the Hahnemannic schema. These eighteen divisions are further sub-divided into 149 chapters, representing diseases and groups of disease, necessarily rather arbitrarily arranged. The chapters are thus arranged:—First is given the name of the disease, or group of diseases treated of; next, a list of the literary sources referred to; then the names of the observers and authors who have recorded their remarks on the disease; then the names of the medicines that have been found useful in its treatment; then follow in alphabetical order the medicines, as heads of sections, and under each, 1st, the general observations respecting it. 2nd, Brief abstracts of the cases cured by it. 3rd, A short review of the observations respecting it. At the end of each chapter is a general resumé of the therapeutics of this chapter.

In order to give a correct idea of the mode in which Dr. Rüeckert has executed his very difficult task, we shall here transcribe a chapter from his work. We select one of the shortest on account of the limits imposed on us:—

"HUNDRED AND TWELFTH CHAPTER.

" *Shingles—Zona.*

" *Literature.*—Allg. h. Ztg. 1, 11, 13, 34, 51. Arch., 12, 3. Corr. Blt. Kreuss., Vehsem. 1.

" *Observers.*—Bute, Croserio, Gaspary, Hendricks, Kreussler, Kretschmar, Lingen, Lobethal, Mühlenbein, Reisig, Trinks, Wolf.

"*Remedies.*—Arsen., Graph., Merc., Mezer., Puls., Rhus, Silic.

" 1. ARSENICUM.

" A.—*General Observations.*

In a case of zona in a woman of very scrofulous constitution, Arsen. 15, one drop, gave rapid relief, and removed the burning that was especially troublesome at night in 24 hours.—Allg. h. Ztg. 1, 89.—Trinks.

" 2. GRAPHITES.

" A.—*General Observations.*

" *a.* When Graph. is of use, we shall generally find that there have been for some time previously derangement in the internal organ whose disturbance occasions the disease.—Kreuss., 233.

" B.—*Special Case.*

" A boy, aged 15—zona for 14 days—had been hitherto treated with rose ointment, which had caused abscesses.

" *Symptoms.*—Large vesicles on an inflamed ground, that occupied a space 6″ long, from the navel towards the spine;

the vesicles were all scratched open. He cries bitterly on account of the burning pain.

"*Prescription.*—Arsen. 30, one drop, had no effect. The third day, Graph. 30, whereby the burning was diminished by next day; and after two more doses, the disease was cured by the following day.—Allg. h. Ztg. 1, 71.—Kretschmar.

"Vehsem., *ibid*, 11, 291., does not consider the above case a cure, but merely a recovery. The complete cure of the boy was only effected in three weeks, but the zona had been destroyed by external remedies, still Graph. removed the burning in three days.

"3. MERCURIUS.

A.—*General Observations.*

"*a*. Trinks gave to a man affected with zona, Merc. 3, and was informed that the disease disappeared much sooner than on other occasions, when allopathic treatment had been employed. —Allg. h. Ztg., 1-89.

"*b*. Wolf stated that he had cured several cases of zona in nine days, by means of Merc.—Allg. h. Ztg., 11, 293. Vehsem.

"*c*. Merc. is the only remedy which will rapidly remove the burning pains, and which shows a specific power in zoster.—Allg. h. Ztg., 13, 261. Lobethal.

"B.—*Special Cases.*

"2. Shingles with gastric derangement was cured in two days, by means of Merc. 300, in solution, a teaspoonful every three hours.—Allg. h. Ztg. 34, 335. Croserio. From the *Jour. de la Méd. Hom.*, tom. 17. 1840.

"3. A boy, aged 12, had a red spot in the small of the back, with shooting pains. In a few days a number of similar spots occurred and extended nearly quite round the body towards the navel. The shingly eruption was about three fingers' breadth, exuded a watery fluid when scratched, and occasionally burned like fire. Merc. 30 cured in a few days.—Corr. Bl. 7, 94.

"C.—*Resumé.*

"Four different practitioners employed Merc. in zona, in *a* to *c*, however, they give no special indications for its use. In No. 3 the burning came on periodically.

" MEZEREUM.

" A.—*General Observations.*

"In a case of zona which had been cured by others, there remained great coldness of the whole body, with burning pain in the spot where the eruption had been. Both were cured rapidly and completely by Mezer.—Allg. h. Ztg. 51, 63. Hendricks.

" 5. PULSATILLA.

" B.—*Special Cases.*

" 4. A man, aged 40, frequently ill, and subject to scrofulous ulcers and glandular swellings, became affected with zona. Cham., Rhus., Bell., did no good. Puls. cured in two days, and the disease did not return. The following are the indications leading to the selection of Puls. :—

" 1. The gastric fever and deranged digestion are precisely similar to those of Puls.

" 2. Puls. has the property of causing symptoms on one side of the body (Comp. *Mat. Med.*, Pur. 2, note). This was also the case in the zona. The eruption extended from the spine on the left side towards the navel a hand's breadth wide.

" 3. The shingly inflammation caused sore pain and burning on the affected part. Worst at night until midnight. The pains of Puls. are also worst at the same period.

" 4. Several of the symptoms of Puls. point to local inflammation, with swelling of the skin, itching and burning of the affected parts ; and

" 5. The moral state of the patient corresponded to that of Puls. He was cross, fault-finding, lachrymose, irritable ; whereas, naturally, he was mild and good-natured.

" 5. Since the above, I have treated a second case of shingles. It appeared in the form of a military rash, extending from the back on the right shoulder towards the navel (about three fingers' breadth wide), in a scrofulous child, 1½ years old. The inflammation had already existed three days. The child cried incessantly, and scratched the inflamed part quite sore wherever it could reach it. It could not sleep; had no appetite; thickly furred tongue, and greenish-watery diarrhœa. I gave immediately Pulsat., and the amendment soon set in. In three days the child was quite well.—Allg. h. Ztg., 1, 159. Gaspary.

"Vehsemyer (*ibid*, 11, 291).—Saw no good effects from Pulsat., and hence he doubts its power.

"Gaspary's experience of the efficacy of Pulsat. stands alone, but it cannot be rejected because in other cases Pulsatilla did no good, particularly as they are not fully described. Further trials in appropriate cases can alone decide.

"6. RHUS. TOXICODENDRON.

"B.—*Special Cases.*

"6. Three cases of zoster abdominalis in persons of various ages, were on the left side of the abdomen, and extended from the linea alba, beneath the navel, to the spinous processes of the vertebræ. The spherical vesicles were arranged in rhomboidal groups, and formed a band two or three inches broad, at right angles with the spinal column. The exanthema appeared first at one end of the belt, sometimes at the spine end and sometimes at the abdominal end; it then leaped to the other end, and the interval was filled up by the groups of vesicles spreading from both ends to the centre, and this was the course the disease followed when it went off. A zoster pectoralis exhibited the same phenomena, but it occurred on the right side. Rhus. alleviated the course of the disease considerably; it especially removed the intolerable burning and itching.—Corr. Blt., 3, 44. Lingen.

"7. A girl was affected with shingles; small pustules appeared on a red ground. At first they were discrete, but afterwards several united and became confluent, secreting a purulent-looking fluid, and extending half round the body. One dose of Rhus. 30 cured within nine days. For three evenings only did pain occur; on the fourth the little patient was free from pain, and the restlessness and ordinary pains which are wont to accompany this disease only lasted three days. After that complete relief occurred.—Arch., 12, 3, 127.—Mühlenbein.

"8. A girl, 22 years old, had been treated allopathically for eight days. Tartar Emetic and Aurum Mur. had been given without relief.

"*Symptoms.*—Violent pain with marked gastric symptoms. The rash, with its characteristic vesicles, extended from the ensiform cartilage round the right side to the spine, forming a complete semi-circle, which, at the last named point, was beset with a group of small recently formed vesicles, indicating a fresh eruption.

"*Prescription.*—Rhus. 100, a dose every two hours. After twenty-four hours the pain was gone, and the vesicles began to wither up, and no new eruption appeared. The remedy was continued, and in the course of eight days the cure was complete.—Vehsemeyer, 1, 2, 158.—Reisig.

"9. A girl, aged 8, suffered from shingles, extending from the middle of the chest, round the left side. Febrile heat, often interrupted by rigors; frontal headache; vomiting of everything that she takes into her stomach, even water; bitter taste (the emitted matter is as bitter as gall); yellow furred tongue; much thirst; constipation.

"*Prescription.*—Rhus. 3, one drop. Until the following day, marked aggravation of the febrile symptoms, but *no* new eruption. In the next twenty-four hours the pain went off completely, and the eruption dried up into scabs. *Cure* complete in a few days.—*Ibid.* 159.

"C.—*Resumé.*

"Three different practitioners evidently shortened the *duration* of the disease by giving Rhus; the restlessness and tormenting pains, and also the fever soon went off. In *No. 9* gastric symptoms were well marked.

"The *doses* were, Rhus 3, in drops, 30, and 100.

"7. SILICEA.

"A.—*General Observations.*

"The cases of shingles given in No. 6 remind me of the only three cases I have met with which were rapidly cured by Silic. 30.—Corr. Blt., 6, 81.—Bute.

"A general review of these few observations would be superfluous. The chapter is, on the whole, very meagre.

"Among the few remedies, Rhus is distinguished for its efficacy. The particular indications for Merc. and Silic. are awanting.

"In the violent burning Arsen. was of use, and so was Caust., according to Goullon (*see* Chap. 113). When the digestive organs are much affected, Kretschmar administers Graphites."

This chapter is by no means a favourable specimen of Dr. Rüeckert's work; but we have selected it on account of its shortness, as it would have been impossible, with the available space at our command, to have transferred one of his longer and more complete chapters to our pages. This chapter, imperfect as it is, will give the reader a fair notion of the plan of the work, and he will readily imagine how valuable such a work must be to the practitioner, containing, as it does, a summary of every case and every opinion as to the therapeutic value of our medicines, that have appeared in German homœopathic literature.

A supplementary volume by Dr. Oehme, of Concord, is being published, which brings the record up to the year 1860. The whole work will constitute a valuable cyclopædia of homœopathic therapeutics; not a mere transcription of cases, like the *Clinique Homœopathique* of Dr. Beauvais (*alias* Roth), but a complete digest and analysis of all the valuable therapeutic observations that have been published in Germany since 1822.

We should very much like to see a good English translation of the whole work, with the addition of the cases and observations that have been published in England, America, and France; but we fear that none of our countrymen have the pluck to undertake such a task, and from America, in its present unsettled state, we can hardly look for any such peaceful occupation as translating a medical work. There are several of our American colleagues well qualified to execute this task, but as long as the whole population of the States are so entirely absorbed in the exciting operation of killing and ruining one another, we can hardly expect our transatlantic colleagues to settle down to the tame and unexciting pursuits of literature.

MISCELLANEOUS.

Successful Inoculation of Syphilitic Blood.

We lately referred to some experiments recently performed at Florence: the inoculation of healthy persons with the blood of syphilitic patients. The results of these experiments have been just published in a pamphlet by Professor Pellizari, of the Clinique of Venereal Diseases at Florence. The experiments were performed with the utmost care; and every precaution taken to exclude all sources of error in the results. The results of the experiments appear, on the face of them, to be of very great importance; and we, therefore, hasten to lay a summary of them at once before our readers.

On January 23rd, 1860, two young doctors were inoculated with the blood of a syphilitic patient. No abnormal results followed. On February 6th, 1862, (in presence of all the students), Drs. Bargioni, Rosi, and Passagli, who were perfectly free from all syphilitic affection, were subjected to the inoculation. Blood was taken from the cephalic vein of a female suffering from well marked secondary syphilitic disease; the bandage, lancet, and cup used being all new. Charpie was soaked in the blood, whilst flowing, and then applied to the upper and outer part of the left arm of Dr. Bargioni, the part having been previously denuded of epidermis and incised with three cuts. The same operation was performed on Rosi and Passagli; but in the case of Rosi, the blood was already cold when applied; and in the case of Passagli, it was coagulated. In the first twenty-four hours no change appeared. On March 3rd, Dr. Bargioni perceived in the centre of the inoculated surface, whereon the blood was laid, a slight elevation and a little itching. Professor Pellizari examined the papule, and covered it with dry charpie and diachylon; and examined it also every day. At the end of eight days the papule was of the size of a twenty centime-piece. On the 11th, it was covered with a slight crust, and had a silvery colour. On the 12th and 13th, the crust was thicker, very adherent, and split in the centre. On the 14th, two glands as large as nuts, moveable and indolent, appeared in the axilla; the papule was still indolent, but its sensibility slightly increased. On the 22nd the crust fell off, and a funnel-shaped chancre presented itself, with elastic and resistent borders. On the 26th, the chancre was increased in size, and its induration greater. On the 12th April, there appeared on the surface of the body, but chiefly on the sides of the thorax and in the hypochondriac regions, spots of irregular form, and of a rose colour, but giving no kind of inconvenience to the patient. The glandular swellings in the neck were well marked. The erythema spread, and became more confluent, so as to leave no doubt whatever as to its specific nature. It lasted eight days, and pursued a regular course. On the 20th, the cervical glands had increased in size and hardness. The chancre maintained its specific state, and showed no tendency to cicatrization. On the 22nd, the colour of the erythema became decidedly coppery. Lenticular papules were mixed with the erythema; the edges of the chancre were sanguinolent. Mercurial treatment was now begun. From these experiments it follows: *that the blood of a person affected with secondary syphilis and in its acute stage, inoculated on five persons free from every kind of anterior syphilitic disease, communicated syphilis to one of the five.*

The following is the *resumé* given of the experiments:—

1. Three or four days after the inoculation, all traces of it disappeared, with the exception of a red colour at the point of denuded epidermis.

2. Twenty days elapsed before Dr. Bargioni perceived the papule at the inoculated point.

3. This tardy appearance of the papule cannot be explained by inexperience or negligence, as Dr. Bargioni was perfectly well acquainted with the characters of the primitive form, such as it appeared in the case related by Waller.

4. The papule at first retained a dry character. It did not become moist and ulcerated until the ninth day.

5. The swellings of the axillary glands preceded the ulceration of the papule.

6. The primitive phenomenon, which produced the syphilis with which Dr. Bargioni is now affected, possessed the characters and followed the course of those phenomena which are the result of the inoculation of constitutional syphilis.

7. Sixty-five days intervened between the inoculation and the

manifestation of general symptoms; forty-three days between the appearance of the papule and the erythema; and twenty-two days between the inoculation and the appearance of the papule.

It is thus demonstrated that, in a person who has never been affected with syphilis, we can, by means of the inoculation of blood taken from a syphilitic person at the acute period of the secondary affection, produce at the inoculated point a papule, which ulcerated, and was accompanied and followed by all the phenomena proper to an infecting chancre.

The sceptical may satisfy their doubts, it would appear, by the exercise of their own eyes; for Dr. Bargioni only on the 22nd of last month commenced a mercurial treatment of the disease inoculated upon him; and is no doubt still suffering from the signs of the disease.—*British Medical Journal.*

On the Action of Chlorate of Potash upon Phthisis.

BY RICHARD PAYNE COTTON, M.D.,

Having already considered the thrapeutical action of chloride of sodium, iodide of potassium, iodide of iron, hydrochloric acid, liquor potassæ, phosphorus, and vinum ferri, respectively, upon twenty-five hospital cases of uncomplicated chronic phthisis, I proceed to add that of chlorate of potassa upon a similar number of hospital patients.

The generally-acknowledged tonic, antiseptic, and upholding influences of the chlorate of potassa have caused this agent to be rather extensively tried in consumptive cases. The results, however, have been very variously stated; but, in a recent number of the "Dublin Quarterly Medical Journal," a physician of Belfast has unhesitatingly brought it forward as a *specific* for pulmonary tuberculosis, at least in the first and second stages of the disease.

Of the twenty-five cases for which I prescribed it, fifteen were males and ten females. Eight were in the first stage, eight in the second, and nine in the third stage of phthisis. They varied in age: one had reached fifty; but the rest were from twenty to thirty years. Notes were regularly taken by Mr. Harrington, resident clinical assistant.

Of the entire number, five improved considerably, four improved a little, and sixteen seemed to derive no advantage. Of the latter number, four, at least, may be said to have been more or less benefited when the chlorate was exchanged for some other tonic.

The period during which it was administered varied in different cases. In this, as in the preceding experiments, my habit has been to continue the same treatment for at least three weeks. If, at the expiration of that time, very little or no progress has been made, I have tried something else; but whenever there has been encouragement to proceed, I have done so. My notes record the chlorate of potassa was taken in five cases, for periods varying from six to ten weeks; the average being four weeks. The dose was ten or twelve grains three times a day.

In twelve cases cod-liver oil was occasionally, but not quite regularly, taken at the same time. It would, of course, have been more satisfactory had the chlorate in every instance been administered alone; but many patients on entering the hospital are already so practically acquainted with the good effects of the oil, that it would be cruel to deprive them of its use, whilst in such cases the attempt to do so would in all probability only prove abortive, for I have many times discovered that patients for whom I have not prescribed cod-liver oil have very significantly testified to its usefulness by taking it clandestinely. In analysing those cases in which the oil had been taken, I find that six belong to the list of nine more or less improved patients.

Nine increased in weight whilst taking the chlorate, seven lost weight, and nine underwent no change. Of the nine who gained in weight, six belong to the number who had also taken, more or less, the cod-liver oil.

Of the improved cases, three were very decided, the patients having expressed themselves as feeling better than they had done for many months; two of these, however, belong to the class who had taken the oil. It was generally observed that those patients in whom there was any perceptible improvement were of broken down and cachectic constitution; indeed, just in that condition in which, without regard to their being phthisical, the chlorate of potassa might very hopefully have been prescribed.

The preceding facts, taken in connexion with the very potent influences of improved sanitary and dietetic arrangements to which all the patients were subjected on entering the hospital, would seem to justify the following conclusions:—

1. That chlorate of potassa has no *specific* action upon consumption.

2. That its usefulness, even as an auxiliary in the general treatment of phthisis, is very questionable, and is probably limited to that cachectic class of cases in which it and allied remedies are so often serviceable.

Case of Flatulent Asthma.

By Dr. B. Hirschel, Dresden.

The hours of luck in a physician's life are numbered. They are those when one can say with certainty that he has effected an art-cure in the true sense of the word. Such happiness was my position, a short time ago.

Madame von D., at *Z*——, to whom I was called in by her sister, because I had succeeded in alleviating her own sufferings and respiting her life, after she had been long under allopathic treatment, (her complaint was well-marked *Scirrhus pylori*), consulted me on September 12th this year (1860). The lady, aged 45, had a pale complexion with a yellowish tinge, was rather thin, and until the complaint mentioned below, had otherwise been always quite well. After a violent mental emotion, she had, two-and-a-half years ago, had a severe attack of asthma. This was afterwards very often repeated; after constipation, (to which she was very liable,) after getting her feet cold, after vexation and other excitements; so that she was never long free from it. Upon more exact inquiry, the attack appeared to consist in this, that the stomach swelled out, whereupon a pressure set in upon the soft parts of the back, which seized her, like a vice, mid-way between the shoulder-blades, so that the breathing was gasping and hesitating. When at the worst, the patient was obliged to lie down, and even to kneel on the ground for anguish. By eructation, which followed with a loud noise, the attack was alleviated; but it was only after flatus or stool that it disappeared entirely. The duration of the attack was variable up to half an hour: its return not limited to any part of the day. By objective examination was found slight enlargement of the liver without alteration of its texture. The prominent left lobe was evidently pressing upon the stomach, which was enlarged and sounded tympanitic. No sign whatever of icterus, gastric catarrh, spinal irritation, or any affection of the heart or kidneys. I thought myself authorised to deduce the constipation from deficient discharge of bile into the intestinal canal, and an abnormal retention of the excessively developed gas, and from a failure of the peristaltic motion, and the passive enlargement of the stomach, whilst this (the wind) pressed upwards and mounted into the œsophagus, the pressive sensation of a vice was produced between the shoulders, and not from any kind of spinal origin, as neither painful sensations in the vertebræ, nor any other nervous symptoms were present; and the sensation confined itself to the soft parts. The difficulty of breathing, which, moreover, disappeared after eructation and flatus, doubtless depended on the distension of the stomach and the compression of the diaphragm; to which also the pressure in the back contributed its share. These considerations, but especially the objective symptoms, decided me upon prescribing *Lycopodium* 3rd *trit.* (1·10) ℈ij. to ʒj. of *saccharum lactis*, every second day as much as would lie on the point of a knife.

The patient let us hear nothing of her again; until a few weeks ago, her son paid us a visit, commissioned by her to inform me that, after taking the above powder, a single very slight attack had succeeded; and that the patient felt perfectly well for two months past. She could well value this, after two-and-a-half years of suffering; and her confidence in homœopathy was decidedly won from that time forward. I quite share the enthusiasm of the highly respected Goullon for *Lycopodium* in gastric disorders, but have never been obliged to make use of the 30th potency. *(Hirschel's Zeitschrift).*

Professor Czermak's Laryngoscope.

Having recently had the advantage of witnessing a demonstration of the employment and uses of his laryngoscope, by Professor Czermak, we were thereby reminded that we have hitherto omitted to notice this novelty in our pages, and we now hasten to repair this omission.

We shall not attempt to settle the question as to whether the honor of priority in the employment or invention of this instrument belongs to Garcia, Turk, or Czermak himself. Indeed, from a quotation made by Czermak in his work,* from the "Practical Surgery" of Mr. Liston, it would seem that to our chirurgical countryman the profession is indebted for the first employment of a laryngeal speculum for the purpose of diagnosis. But we are more concerned with the instrument and its revelations than with the rival claims of the angry disputants.

Czermak's instrument, as every one knows, consists of a flat mirror of glass, speculum metal, or steel, of a square shape with the angles rounded off, attached at an obtuse angle to a long stalk. This mirror is introduced into the patient's mouth and made to lie on the soft palate, so that the reflection of the glottis is conveyed to the observer's eye who stands immediately in front of the patient. The necessary illumination of the glottis is made by means of a gas, camphine, or oil lamp, the rays from which are thrown upon the mirror in the mouth by means of the concave mirror. This mirror has a hole in its centre, as in the ophthalmoscope, through which the eye of the operator looks. As doubtless all our readers are familiar with the apparatus, we need not here enter into any more particular description of it. With the simple addition of a small flat mirror any one may inspect his own glottis and larynx just as well as those of another person.

The laryngoscope in the hands, or rather in the mouth of Professor Czermak—for by constant practice he has acquired a dexterity in exhibiting its powers possessed by few—enables us to see not only the epiglottis, rima glottidis, vocal cords, arytenoid cartilages, and cavity of the larynx, but even the interior of the trachea itself as far as its bifurcation. All this we saw in Professor Czermak's throat; because he is able to introduce into his mouth and keep in apposition with the soft palate a mirror of the largest size, and the conformation of his throat is such that neither tongue nor epiglottis comes in the way of the image of the other parts. But this facility of exposure of the hidden parts of the throat is not possessed by all persons. We saw Signor Garcia, the eminent singing-master, who has long carried on a series of investigations with a laryngoscope of his own construction, and who already, in 1855, published an article on the subject in the "Philosophical Magazine;" we saw him, we repeat, attempt to show his larynx in the manner of Professor Czermak, but the attempt was a comparative failure, in consequence of the interference of the epiglottis.

---

* "On the Laryngoscope." New Sydenham Society, 1861.

All medical observers are aware how difficult it is to obtain a sight even of the fauces of many individuals. When we desire to do so we find the tongue in the way, and on attempting to depress it with a spatula, or handle of a spoon, retching immediately ensues and we are foiled. In such persons it would be hopeless to think of using the laryngoscope. And generally when an irritable condition of the soft palate and fauces exists, the instrument would be inapplicable, unless by practice or the employment of some anæsthetic,* we can succeed in dulling the sensibility of these parts.

However, besides such cases there are many in whom no difficulty would be experienced in obtaining a perfect view of the glottis by means of the laryngoscope, and when this can be done, we can readily imagine that the instrument must be of great use in assisting us to diagnose affections of these parts. Indeed, during his stay in London, Professor Czermak has frequently demonstrated the existence of unsuspected disease in the glottis, and his work which lies before us is full of remarkable phenomena revealed by his instrument.

We, therefore, must express our cordial thanks to Professor Czermak for the valuable aid to diagnosis his industry and zeal have placed in our hands, and we believe that it will prove of immense value in many cases, though its employment is necessarily limited by the capability of the patient to display his fauces, and by the sensitiveness of the parts with which the instrument comes in contact.

Professor Czermak has employed a modification of his instrument for the purpose of exploring the posterior nares, but any objections that may be made to the use of the instrument for exploring the larynx, apply with ten-fold force to his adaptation of it to rhinoscopy, to do which effectually the soft palate must be drawn forwards by means of a ring-shaped spatula, an operation which we conceive would not be tolerated by one out of a hundred persons.

Dr. J. C. B. Williams on the Action of Cod-Liver Oil.

It is in my opinion a mistaken view to regard cod-liver oil as a material which only plays the part in the body of a simple nutrient. Twenty years of experience, various in kind and extensive in its range, have convinced me that it has other and directly therapeutic powers. Over and over again I have seen not only an improvement in the system generally under its use, but a diminution in the amount of tubercular deposit. I entertain the conviction that it promotes the dispersion, absorption, and removal of tubercle. This is a question too long to discuss here; but it may be observed that the cod-liver oil has a power of pervading the system more thoroughly than any other oil. It is highly assimilable, and peculiarly well tolerated by the stomach. It makes a particularly perfect emulsion. An indication of one of its remarkable properties is, the preference which it has had over other oils for the purpose of currying leather owing to the penetrative power which it possesses. Its divisibility promotes absorption, and the oil being taken into the blood pervades the system; and we have, as it were, a liquid oleaginous bath operating on the tuberculous matter. A large proportion of the tuberculous deposit is made up of fatty matters—there is a good deal of solid fat in its composition; and the oil may help, I think, to soften and dissolve the *margarates* which enter into the constitution of tubercle. I will not, however, dwell upon this; and after all it may be purely speculative.—*Lumleian Lectures*, 1862.—" *Lancet*," *April* 19, 1862.

---

* Bromide of potassium is said to produce insensibility of the pharyngeal region.

The Action of Phosphorus on the Liver.

Dr. Lewin has recently directed the attention of the medical profession to the curious fact that there is an evident connexion between poisoning by phosphorus and fatty degeneration of the liver. He was led to this discovery by finding in the published reports of cases of poisoning by phosphorus, in which autopsies had been made, statements regarding an alteration of the liver. He then experimented upon dogs and rabbits, and found that we may, by administering small doses of phosphorus which do not immediately kill, cause fatty degeneration of the liver, with destruction of the acini, that is a condition closely analogous to that which is found to exist in cases of acute atrophy of the liver. He also discovered that poisoning by phosphorus produced a peculiar affection of the kidneys and rendered the urine albuminous as long as life continued.

These physiological experiments were soon afterwards shown to be perfectly correct by a case of poisoning by phosphorus which occurred in the clinique of Professor Frerichs, in the Charité Hospital. A servant girl committed suicide by eating the tops of a thousand lucifers; when brought into the Hospital she suffered from icterus and enlargement of the liver; the urine contained biliphilin and albumen. She died shortly afterwards without having had much pain, and no symptoms of a disturbance of the nervous system having been observable. The post-mortem examination, which was performed with the greatest care, showed that the blood was in a state of dissolution, it had the colour of cherry juice, was very thin, and no coagula, and scarcely any globules were found in it. The skin and mucous membranes were suffused with blood, the liver was greatly enlarged, and its edges blunt. On being examined by the microscope, the acini appeared to be filled with fat to bursting.—*Medical Times and Gazette, May* 3, 1862, *p.* 463.

Poisoning by Lead.

A hair-dresser, passionately addicted to the use of the spirituous bitter called *absinthe*, after being turned out of several situations, as a last means of earning a livelihood, sought refuge in a white-lead factory. He was admitted into this establishment on the 24th of August, 1861, and nineteen days after was compelled to leave on account of severe symptoms of saturnine poisoning. He was received into the hospital of La Charité, where the eccentricity of his temper and some incoherence in his mind attracted attention. On the 4th of January, 1862, however, he resumed his labour in the factory, and a month afterwards, he applied for admission at the Hotel-Dieu, where he was admitted on the 5th of February, and the second night after his entrance into the wards, he had no less than six convulsive attacks, the last of which proved fatal.

Was the case to be considered one of epilepsy, or one of saturnine eclampsy? The urine contained no trace of albumen, and Mr. Trousseau might have rejected the idea of eclamptic fits, had he not been aware that albuminous urine, a sign of much importance to the diagnosis in the instance of children or gravid women, is never found in subjects labouring under lead-poisoning. Epilepsy, moreover, is seldom fatal; eclampsia frequently causes death, and this man perished in convulsions. From these reasons, the Professor concluded that the patient died from the effects of convulsions consequent on saturnine intoxication.

Instances of the kind are not very uncommon. Tanquerel des Planches relates seven cases in point, and in some, the subjects had been but a short time exposed to the noxious emanations. Mr. Trousseau's patient had altogether worked but seven weeks in the lead factory. It should, however, be observed, that some individuals become affected after comparatively trifling exposure, and present, at the same time, a remarkable degree of resistance to equally powerful *ingesta.* We have seen in Mr. Trousseau's ward a man affected with polyuria who drank in the course of an hour, twenty bottles of wine without inconvenience, and who manifested symptoms of poisoning after taking one-sixth of a grain of extract of belladonna. The present case is illustrative of this apparent contradiction. This habitual drunkard, inured to the absorption of enormous quantities of spirits, was killed by saturnine emanations in the course of seven weeks.

In Mr. Trousseau's opinion all the symptoms induced by lead-poisoning are the result of the action of the deleterious principle on the nervous centres. Poisons, whatever their nature, display a singular elective affinity for certain organs. Each toxic agent would appear to have a specific direction which it assumes in preference to any other. Thus lead seems to act more particularly on the cerebro-spinal axis.

Messrs. Devergie, Guibourt, and Barth have already chemically demonstrated the presence of lead in the brain and spinal cord of subjects who perish under the influence of saturnine poisoning. Mr. Châtin, in the present instance, again ascertained the same fact. Requested by Mr. Trousseau to institute an inquiry into this point, this able chemist examined equal portions (half a pound in weight) of the brain, liver, and spinal cord, and found in the latter one-twentieth part of a grain of sulphuret of lead, somewhat less in the brain, and one-fifth of a grain in the liver. It is, therefore, beyond all doubt, that a notable amount of lead can be conveyed to the nervous centres and gives rise to very serious neurotic symptoms, even when the impregnation has taken place at no very distant date.

A case of the same description recently occurred in Professor Piorry's wards, at La Charité, and chemical research yielded similar results.

A patient having died from cerebral symptoms induced by saturnine poisoning, Mr. Piorry requested Mr. Fordos, the able chemist attached to the hospital, to examine the brain, and the presence of lead was ascertained in that viscus.

Mr. Fordos, it would appear, has twice before verified the same fact, which has suggested to Mr. Piorry the idea of exhibiting, in cases of nervous disturbances induced by lead, essence of turpentine in inhalations, in frictions, or internally, in order to act through the medium of the circulating system on the lead contained in the viscera. Future experience only can decide on the value of this theoretical view.—*Medical Circular, May* 7, 1862.

How these Allopaths love one another! Dr. T. K. Chambers on Dr. Hastings' last remedy for Phthisis.

A few words as to special specifics for consumption. Some years ago, Dr. John Hastings announced that "napththa" was an infallible cure for this disease. Well, people tried it, and soon knew that it was only applicable at all in cases where alcohol was beneficial, and even to those patients they found the purer and wholesomer forms of alcohol in daily use were both more useful and more acceptable. All the advantages of the remedy had been in the possession of the public in a pleasanter form years ago. Determined at last to try a virgin substance—*integros accedere fontes atque haurire*—the same gentleman has lately announced that serpent's dung (!) now succeeds to the throne on which naphtha reigned of old. Our rude forefathers in art administered many curious things: the ashes of toads, the urine of boars, live spiders, are in their lengthy pharmacopœias. Their notion was, I believe, to drive out the devil by disgusting him. But I do not think they ever hit upon the bright thought of using the very dung of the accursed type of evil, that, as he "went out," he might say—

"That eagle's fate and mine are one,
Who in the shaft that made him die
Beheld a feather of his own,
Wherewith he wont to soar so high."

I really believe the idea is original.

Good coprologists tell us that the excreta of snakes consist mainly of lithate of ammonia—a harmless though unattractive substance, and which most persons familiar with physiology would conclude to be inert. I remained satisfied with that belief till I heard Dr. Hastings, when arraigned before a public court of justice for avaricious malpraxis in knowingly administering inert remedies, swear positively that he believed this substance to be a powerful physiological agent. The powerful physiological agent was made by dissolving (*i. e.*, destroying) sixteen grains of boa constrictor's ejecta in a gallon of water by the addition of bromine. A Bible oath is a staggerer, and after that I could not feel justified in asserting fæces to be useless till I had tried. I procured, therefore, a sample from the Secretary of the Zoological Society, and caused to be prepared a quantity of the "solution," under the name of "mistura pythonis." You have seen me order it a good many times since in cases where, no drugs being required, I felt myself justified in so doing. But instead of half an ounce, which was stated to be so active, I have given two ounces three times a day. You have seen that its effects are exactly the same as those of so much pump-water. —*British Medical Journal.*

Almost persuaded to be a Homœopathist.

Among other antiphlogistics to reduce inflammatory fever, I would say a few words on *aconite*, calomel, purgatives generally, and blood-letting. Aconite, I have observed, like opium, has a very powerful influence upon children, and it is to a certain extent cumulative. If anything could make me a homœopath, it would be this action of aconite. Two drops of aconite, I mean the tincture of the root, are fully equivalent to twenty drops of laudanum. Now you are aware how readily opium poisons infants. Several cases are on record. Ramisch, of Prague, nearly killed an infant four months old, by one grain of Dover's powder; four grs. of the same medicine killed a child four and a half years old in seven hours. Kelso met a case where a child nine months old was killed by four drops of laudanum. A child six days old was killed by half a minim of laudanum, and so on. Aconite would, upon the scale above given, kill in minute doses; $^1/_{200}$ of a drop of aconite would kill a babe two days old. Perhaps, however, this is an exaggeration, but there can be no doubt of its specifically powerful action on infants. Aconite, moreover, possesses another peculiarity. In particular idiosyncracies it acts with extraordinary vigour. One drop sometimes produces poisonous effects even in adults. It should, therefore be given with great caution to adults. The specific action of this drug upon infants is upon the pulse, and this is the test of its beneficial or opposite influence. I usually dissolve five drops of the strong tincture of the root

(Flemmings) in 12 ozs. of water, and give ℥ss. every two hours till the fever subsides. This amounts to about two minims of laudanum if the scale above given (two m. acon. to 20 of laudanum) be correct. At any rate, in practice I have found this quantity, which is nearly one-fifth of a drop, has sufficed to bring down the pulse by the second or third dose. With very young infants half this quantity will suffice.—(*From a Lecture by Dr. Routh, author of "The Fallacies of Homœopathy," in the "Medical Circular," May* 14, 1862.)

A New Hæmostatic.

An addition to the list of efficient hæmostatics must always be acceptable to surgeons. A plant called *Pengawar Jamba* (*Palea Tibotii)* has been lately brought over from Java, and is said to be possessed of extraordinary hæmostatic power. It is a kind of fern, yielding a mass of delicate filaments so light and flexible as to be capable of floating a long time in the air. Their colour varies from a brownish gold hue to a greyish black. Six grains of these filaments form a sufficient quantity to stop the bleeding of an artery, a twelfth of an inch in diameter. This substance displays excessive avidity for water, exhales, when heated, an empyreumatic perfume, and, if it be burnt, explodes. The rapidity with which the filaments absorb the aqueous parts of the blood, induces the immediate coagulation of this fluid, and the fibres form, moreover, an impenetrable pledget, which efficiently closes the wounds to which they are applied. The promptness with which Jamba checks hæmorrhage will doubtless make it highly valuable in cancerous and scorbutic ulcers. —*Galignani's Messenger.*

A Nut for the Medical Council to Crack.

We take the following from the minutes of the Medical Council of May 16, 1862:—

Read the following letter from Richard Hughes, Esq,, M.R.C.S., England, and L.R.C.P., Edinburgh :—

"10, Clarence Square, Brighton, Sept. 21st, 1861.

"Sir—I am desirous of calling your attention to the declaration recently adopted by the College of Physicians in Ireland as requisite to be taken by all candidates for its licence. It is thus reported in the 'Lancet' of August 10th, 1861:—'I engage not to practise any system or method (so called) for the cure or alleviation of disease, of which the College has disapproved. And I solemnly and sincerely declare, that should I violate any of the conditions specified in this declaration so long as I shall be either a Licentiate or Fellow of the College, I thereby render myself liable and shall submit to censure of the College, pecuniary fine (not exceeding £20) or expulsion, or surrendering of the diploma, whichever the President and Fellows of the College, or the majority of them, shall think proper to inflict.' This resolution makes the first granting and subsequent tenure of the diploma of this College dependent on an avoidance of all systems of medicine disapproved of by the College, by which, of course, homœopathy is mainly intended. Now such a course of conduct is in direct contravention of clause 23 of the Medical Act. It is well known that clause 23 was introduced into the Medical Act expressly to prevent any one being hindered in obtaining or deprived of his diploma on the ground of his belief in homœopathy. The King and Queen's College of Physicians in Ireland, therefore, in requiring this declaration to be taken by all candidates for its license, has offended against both the letter and spirit of the Medical Act. And I call upon you, sir, as President of the Medical Council, to report this proceeding to the Privy Council, that the proper measures may be taken for checking or punishing this breach of the law.

"I am, Sir,
"Richard Hughes.
"(Registered under the Medical Act.)

"To the President of the Medical Council."

"Dr. A. Smith, the representative of the King and Queen's College of Physicians in Ireland, explained that the declaration complained of was of very old date; that the College has never expressed any opinion on any theory of medicine, and that, therefore, it never did impose any restraint on the practice of medicine by any candidate; and moreover, that the declaration referred to does not exist in the present code of bye laws.

"Moved by Dr. Corrigan, seconded by Sir C. Hastings, and agreed to,—'That the Council decline to take any steps in the above matter.'"

Dr. J. C. B. Williams, on Simplicity in Therapeutics.

The deduction of results from the administration of compound formulæ, and under ordinary circumstances, is open to so many sources of fallacy as to be practically of little value; and such experiments are useless unless we take the therapeutic element in its strictest isolation and direct it simply and anatomically to the special organ or tissue to which the experiment relates. * * * * When I look back twenty years, and see the great improvements which have been made in our art, I am sanguine of much further progress in the next period. The best prospect for that advance lies in the study of the separate elements of disease in relation to each organ and tissue, and the bringing to bear upon them simple therapeutical elements for their cure.—*Lumleian Lectures*, 1862.—"*Lancet*," *April* 9.

New Homœopathic Periodical.

The medical officers connected with the Manchester and Salford Homœopathic Dispensary have started a monthly homœopathic Journal. The second number lies before us. Its contents are very interesting and well written, and we doubt not that this youngest member of the family of homœopathic periodicals is destined to do much good, and to spread a knowledge of the truth among a class of readers to whom it is unlikely the hitherto existing journals could penetrate. We heartily welcome the *Homœopathic Observer*, and wish it a long and prosperous career.

Two ways of telling a Story.

The following appeared in the *Medical Circular* of May 14, 1862:—

TARRING A HOMŒOPATHIC ESTABLISHMENT.

A Correspondent writes:—"It will give our readers some idea how homœopathy is respected in York, when we inform them that on the night of Monday, the 21st ult. (as the police report words it), 'some evil-disposed person, or persons, did wilfully daub and deface with *gas tar* the gold lettering over the homœopathic dispensary situate in Little Blake street!' which, let us add, is an obscure establishment conducted by Mr. Cope, surgeon, who on the morning after this *lamentable disfigurement* and *nocturnal outrage*, repaired to the police office in that city to obtain redress, but without avail. The police authorities knew nothing about it, and even refused to move in the matter, which they treated as a *practical joke.*"

To this, the editor of our hebdomadal contemporary adds: "This tarring is an inconvenient precedent. Supposing it should be carried to the extent of tarring the homœopath himself! Such a practical joke has been perpetrated, though now fallen into disuse; we should be sorry to hear of its being revived in York on the person of Mr. Cope."

This answer appeared the following week:—

To the Editor of the Medical Circular.

Sir,—Four young scapegraces having disfigured the sign-board of the Homœopathic Dispensary in this city, your correspondent here argues therefrom, that Homœopathy is not so respected in York as those who believe in it consider it deserves to be. Permit me to give you one or two facts relating to this "*nocturnal outrage,*" that you and your readers may see how far they tend to support the theory your correspondent has so hastily deduced from the "*lamentable disfigurement*" over which he rejoices. The police, who I have every reason to believe sifted the matter as far as they were able, informed me that they had evidence of the affair having been arranged at a brothel in Barker's Hill, one of the lowest neighbourhoods in the city. Of the four persons implicated three are known, though the evidence against them is insufficient to sustain a prosecution, the fourth is probably your correspondent. With regard to the police report, from which your correspondent professes to quote—it does not—never did—exist; none was issued. The gist of the whole affair is this,—that a foolish outrage, concocted in a brothel, by four dirty lads, is evidence that Homœopathy is not respected in York! Surely, Sir, I may congratulate myself on my opponents being sadly pressed for means to show that the position of Homœopathy here is what they would have it to be!

As well might the fact of the knocker having been wrenched off the door of the Mansion House three times since last October be regarded as evidence that Mr. Alderman Leeman and his successor, the present Lord Mayor, were not respected by their citizens! Both occurrences exhibit a thoroughly inefficient state of the City police, and the existence of a few persons envious of distinction as local nuisances.

I cannot, however, conclude without mentioning that the damage done in mischievous malice has been repaired at the instance of its perpetrators, the tradesman employed having first of all been silenced in the usual way regarding the names of his employers.

I hope that in future your correspondent will avoid contact with pitch—excepting, perhaps, in the shape of pills and plasters!

Trusting to your well-known and highly-appreciated sense of justice to procure the insertion of this letter,

I am, &c.,
A. C. P.

Dispensary, Little Blake Street, May 8, 1862.

We cannot congratulate the Editor of the *Medical Circular* on his taste in countenancing the silly dirty joke so justly commented on by the aggrieved party, Mr. Cope.

Efficacy of Iodine for the Cure of Gastralgia.

A fresh instance of neurotic symptoms relieved by small doses of iodine, induces us to publish the formula of a solution, the utility of which is pointed out by Dr. Massart, of Napoleon Vendée, in a paper forwarded to the Medical Society of Antwerp. The following are its components:—

℞. Tinct. iodini, gr. xv.;
Potass. iodid., gr. j.;
Aq. distill., ℥j.

Six drops of this mixture should be exhibited thrice daily in a little sugar and water. Mr. Massart highly recommends it in the sympathetic sickness of pregnancy, in gastralgia, dyspepsia, and œsophageal neuralgia.—*Medical Circular, May* 21, 1862.

Efficacy of Fucus Vesiculosus (Quercus Marina) for the Cure of Obesity.

Fucus vesiculosus, sometimes termed *quercus marina*, and *kelp-ware*, is a cryptogamic sea-weed, which was formerly employed by the Romans for the cure of gout. Mr. Duchesne Duparc has recently published an interesting monograph on this plant,* in which he informs us that Gaubius, Annel, and Baster, to whom, on Dr. Pereira's authority, we may add the name of Dr. Russell, employed it with supposed advantage as a deobstruent in scrofula, goitre, and glandular enlargements. The discovery of the medicinal virtues of iodine had caused it to be forgotten, but accident again recommends it to the attention of the therapeutist, and thanks to Mr. Duchesne Duparc, it is in a fair way to recover a portion, at least, of its former celebrity.

---

* A Pamphlet, 8vo, J. B. Bailliere and Son.

"Some years ago," says that practitioner, "*fucus vesiculosus* was mentioned to me as a useful remedy for inveterate psoriasis; I gave it a trial which did not yield the promised results, but the failure was compensated by the discovery of other remarkable effects. In all the persons to whom the drug was exhibited, a more or less considerable loss of flesh was observed. This phenomenon invariably occurred, occasionally in a short time, but always without discomfort or disturbance of the digestive functions, the only appreciable symptom being an increase of the urinary secretion."

Since this period (1857), several patients affected with excessive obesity having derived considerable benefit from the use of the remedy, Mr. Duchesne Duparc continued to prescribe it, not as a specific for diseases of the skin, but as a new stimulant of the absorbents of fatty matter, and as a deobstruent, calculated to arrest the progress of premature encumbrance of flesh. The author adduces in his pamphlet several new cases confirmative of the first results observed, and enters into an interesting disquisition on the subject of the nature and treatment of obesity. We must confine ourselves to a brief description of the characters and mode of exhibition of *fucus vesiculosus.*

Kelp-ware is one of the numerous genera of the tribe *Fucoideæ* to which rural economy, arts, manufactures and medicine are further indebted for many useful contributions. It abounds on the shores of the Atlantic and Mediterranean, and is attached by a fan-shaped pedicle to the rocks, rising to a height of 13 or 15 inches, in a coriaceous dichotomous frond, supplied with air-vessels and receptacles filled with mucus. Its substance is thickish, flexible, and tough; glossy green when fresh, dark brown when dry; its odour is strong, and its taste nauseous.

Fucus vesiculosus may be pulverised, and an extract is prepared which is more active than the powder. Mr. Duchesne Duparc prescribes the extract in three-grain pills, 15 or 20 of which should be taken in the course of the day. A decoction which can be exhibited between or at the meals, may also be made with half an ounce of desiccated fucus (the stem and smaller branches being removed), for two pints of water.—*Medical Circular, June* 11, 1862.

On compressed Air as a Therapeutic Agent in certain states of Disease.[*]

For a series of years there have existed some special institutions (to my knowledge at Lyons, Nice, and Montpellier), in which, under the particular direction and careful conduct of a physician, patients, particularly of the pulmonary and laryngeal class, remain for a certain space of time in bells with compressed air. In some individual cases, very favourable results are said to have been obtained. At any rate, the fact is too important to deserve to be utterly ignored. Several publications on the subject of these air baths have already appeared; namely, by Dr. J. Milliett (*De l'air comprimé au point de vue physiologique.* Lyon, 1856), and by Dr. Pravaz. An extract from the latter work, made by Dr. Proel, will be best calculated to inform the reader of the "Vierteljahrschrift," summarily, respect- this new curative agent.[†] (Dr. Müller, Editor.)

1. The pressure of the air exerts a mechanical influence on the development of the lungs, and hence, also, on the expansion of the chest; up to a certain degree, in condensed air, the inspiration gains a longer protraction.

2. The chemical phenomena of respiration are also modified by the degree of atmospheric density. The endosmose of the oxygen increases with the pressure. (According to Biot and Hervier.)

3. Atmospheric pressure is one of the agents which promote the venous circulation. Hence, an increase of density must favour the return of the blood to the right cavities of the heart; and, on the contrary, rarification of the air must cause congestion to the capillary net-work.

4. The physiological phenomena which are observed in the ascent of high mountains, or under the diving bell, agree perfectly with the above position. In fact, in the rarified air of the higher regions, the respiration becomes short and gasping; the muscular movements proceed with difficulty; the arterial circulation is accelerated, whilst the venous is retarded; hence come the various hæmorrhages, and the stasis of blood in the portal system, which betrays itself by colic, nausea, and tendency to vomit. In the

---

[*] From the *Homöopathische Vierteljahrschrift.*

[†] In vol. xiv., p. 124, we gave an account of this mode of treating disease, which was then a novelty, but is not so now, as it has been introduced into some of our large hydropathic establishments, particularly Dr. M'Leod's, of Ben-Rhydding.

condensed air of the diving bell, on the contrary, the respiration becomes easier, and more prolonged. The muscular movements show more energy; the functions of digestion and secretion proceed with more celerity; the rythm of the pulse remains stationary, or even becomes slower.

5. The curative results which may be deduced from the physiological phenomena observed in condensed air were not observed and made available till these latter times, when the scientific society at Haarlem (1783) directed the attention of physicians to this circumstance, which is closely connected with the contemporaneous discovery of pneumatic chemistry.

6. One of the first applications of the (condensed) atmospheric bath to the treatment of invalids had for its subject pulmonary phthisis, when it had not yet passed the second stage; but it is still more to be prescribed as a powerful modifier of the constitution, and as a prophylactic.

7. The curative and preservative effect of compressed air upon the tuberculous diathesis is apparent from the fact that the components of its total action on the organism are opposed, every one of them, to the causative influence of that diathesis. Thus the air bath, by retarding the arterial circulation and accelerating the venous, leads to the resolution of the abdominal exudations which are so frequently connected with the development of phthisis. And, inasmuch as it makes the respiration more extensive, it promotes the combustion and excretion of the detritus of the organs, whose weakness is one of the principal causes of the deposition of the tuberculous matter.

8. The air bath may also be employed, with good result, in Pott's disease, and in local gout (gout with exudation). In the first, it facilitates the interstitial absorption of the tuberculous matter, and furthers the secretion of the osseous element which has to repair the loss of substance that goes to waste by the erosion of the bodies of the vertebræ. In the second case, it diminishes (besides its general restorative effect) the various exudations in the veins of the joints; and thus diminishes the periodic symptoms produced by the exudations.

9, Since the primary symptomatology, and perhaps ætiology of rhachitis is founded upon the two following fundamental evils:—

a. Retarded development of the organs of respiration.

b. Infarctus of the liver and the chylopoietic structures. Hence the compressed air bath is rationally indicated in the treatment of this disease, since it enlarges the field of respiration, and promotes the venous circulation of the abdomen. And experience confirmed this indication in the rhachitis of the earliest childhood.

10. The foundation of lateral deviations of the spine is laid in insufficient nourishment, which last does not supply the earthy portion to the bones (by which they maintain firmness) and the fibrinous matter to the muscles, which is their principal component part. The bones, reduced almost to a gelatinous mass, attain an abnormal growth, whilst they lose their consistence. The muscles, on the contrary, are kept back in their development. Through these circumstances combined, the spinal column, whilst it lengthens, is forced to curve itself in alternately various directions, and to rotate on its axis in compliance with the resistance offered to it by the relative shortness of the oblique spinal muscles. Therefore the attention must be directed to the nourishment of the various main phases of growth, in order to prevent the deformities, or to correct them, if they are still recent. Now the condensed air favours digestion and improves the hæmatosis, by increasing the absorption of oxygen, and extending the respiratory surfaces.

11. A relative deficiency of the number of blood globules is often united with chlorosis, if it is not the entire cause of it. *Ferrum* and *Manganese* are not always borne in this condition. The air bath acts innocently, and at once restoratively and directly on the economy.

12. From observations borrowed from the diving bell, one might already have inferred the curative action of compressed air in deafness arising from disease of the tympanum, and stoppage of the eustachian tubes. But it also serves for a congested state of the vessels of the labyrinth, inasmuch as it attenuates the blood in the venous sinuses at the base of the cranium. (Legorge.)

13. By the same mechanical power, it subdues certain hyperæmiæ of the brain and spinal chord, which are capable of giving rise to epileptic diseases, to muscular shortenings, and weakness of the lower extremities.

14. Other forms of neurosis, which seem to depend on an affection of the pneumogastric in its various ramifications, as spasmodic asthma, some kinds of aphonia, painful palpitation of the heart, and gastralgia, yield to compressed air. One may conjecture that an energetic circulation of the blood in the branches of the *vena portæ*, or of the azygos, in this case, drives towards the intestines the

congestion which caused the disturbance in the functions of that nerve.

15. As oxygen is the main agent in those chemical changes which prepare for elimination the detritus of the organs and other foreign substances introduced into the animal economy, every increase of the endosmose of oxygen into the blood must accelerate the resolution of miasmatic diseases, as well as the metasyncrisis, in those which appear to be produced by defective assimilation. The curative effects of compressed air in influenza, intermittent fever, whooping cough and rheumatism, confirm the above presumptions. Dr. Pravaz employs the following arithmetic formula, modelled on that of Dr. Person :—

$\Delta = \frac{h\,V}{H-h}$ $\Delta =$ Increase of volume in the lungs.

because $h = H - \frac{HV}{V + \Delta}$ according to Marriott's law.

$$\Delta^1 = \frac{h^1\,V}{H^1 - h^1}$$

$$\Delta : \Delta = \frac{h^1\,V}{H-h} : \frac{h^1\,V}{H^1\,h^1}$$

h = height of the mercury in the tube, after a forced inspiration.

V = volume of air which the tubes receive at the beginning of the experiment, and under a different pressure.

H = height of the column of mercury in the barometer.

$$\frac{\Delta^1}{\Delta}\;\frac{\dfrac{h^1\,V}{H^1 - h^1}}{\dfrac{B^1\,V}{H - h}} = \frac{h^1\,(H - h)}{h\,(H^1 - h)}\;;\ \Delta^1 : \Delta = h^1\,(H - h) : (H^1 - h^1).$$

Dr. Person writes, in his elementary *Treatise on Natural Philosophy*, 1836 :—

"If we part the wings (flaps) of a pair of bellows from each other, we diminish the elastic force of the air inside, and the external air rushes in by its superior power, partly through the little pipe, partly through the valve which is compelled to open. The mechanism of inspiration is incidentally the same, at least so far as concerns the valve that is destined to prevent the entrance of warm air into the bellows."

"But this simile is not quite correct," says Dr. P. further. "According to Dexy's experiments, at an ordinary inspiration, 0·650 litres of air enter the chest; but by a deep inspiration one can draw in 1½ to 2 litres. From 5 to 6 litres is taken to be the average capacity of the chest: hence it appears that one can, by a strong inspiration, raise the elastic force of the air contained in the lungs nearly two-thirds, and thereby raise the mercury in the tube about 8 or 9 inches, whilst, in reality, as the breathing is performed by the chest, the elastic force hardly reaches 2 inches. The reason of this is that we are far from being able to attain an expansion of 1½ to 2 litres during the non-entrance of air: in order to expand the chest up to that point, the elastic force of the penetrating air must help to overcome the resistance of the external air. In fact one ascertains by a belt that the chest expands very little if one tries to make an inspiration without letting the air rush in."

Whilst I was repeating this experiment pointed out by Dr. Person on air compressed in various degrees, I found that, from the ordinary pressure of 0·76 metres, the mercury rose progressively in the tube with the increase of condensation up to a certain degree, which was variable, just according to the individual subjects of experiment. Above this degree, the column came to its normal level again, or even sank below it. The results presented thereby may be shown by the above Algebraic analysis, and expressed in words as follows:—

1. The expansion of the forced inspiration or the development of the lungs increases with the atmospheric pressure up to a definite point, which is generally limited by the strength of the individual.

2. The atmospheric pressure ceases to favour the expansion of the organs of respiration as soon as it reaches the point where it overpasses the ever increasing difference that exists between the effort of the inspiratory muscles and the elasticity of the thoracic parieties.

On the Veratrum Viride in Disease.

[The following summary of the action of this medicine as used by allopaths, is contained in the *Monatsblatt* to the *Allg. Hom. Zeitung*, vol. lxiv., p. 26.]

"The *Veratrum Viride*, or *Helleborus Americanus*, a drug in great favour with the American physicians, is as yet very little known amongst us. Pereira mentions it in a note, but confounds its action with that of the *Veratrum Album*. The first mention of this plant as a medicine occurs in 1817, in *Bigelow's American Botany*, where Dr. Ware's experience of it is communicated, and the peculiarity pointed out that it does not, like other emetics, run off as a purgative when it fails to cause vomiting. A further mention of it is made in 1835 by Dr. Osgood, who speaks of the narcotic, as well as of the heart-depressing action of this medicine, which he used in tincture of the fresh root. In 1852, Dr. Norwood published his experience of Veratrum viride, and his statements differ from Dr. Osgood's, in that he denies the narcotic properties of the drug, since it by no means benumbs like opium, but, acting as a nervine, it lowers the morbidly increased irritability, and removes neuralgias and convulsions, and brings about amelioration in cholera and epilepsy. Norwood saw, also, under its use, the pulse sink down to 35 without the production of nausea or vomiting. He employed it in a tincture made from 8 oz. of the fresh dried root, macerated 16 days in a pint of Sp. vini.: the dose was 4 to 6 drops, and this was increased till falling of the pulse or nausea began to appear. Dr. Wood recommended this tincture in all inflammatory diseases except those of the *primæ viæ*, and especially in pneumonia and acute rheumatism. In March, 1858, the Medical Society of Massachusetts formed a committee for the trial of the medicinal properties of the veratr. virid.; and first took especial care to secure a good preparation for distribution among the members. The fresh roots were cleaned carefully, then dried with a stream of hot air, broken in pieces and ground in a coffee mill. From 20lbs. of this coarse powder 10 gallons of spirituous tincture were prepared. The first report of the committee was furnished in December, 1858. It was founded on the experiments of 10 physicians on 34 patients, children and adults, and confirms the calming effect of the medicine on the arterial system remarkably; and also the fact that it differs from Veratrum album in seldom or never causing vomiting or purging. A second report was published in October, 1861, containing detailed experiments of 30 physicians. The majority—in fact all with two exceptions—verified its predominant action on the heart und its high value as a remedy in diseases characterised by vascular excitement. They recommended the tincture of the Veratrum viride, more especially in the following diseases:—1st, pneumonia, without any other medicine; it mitigates the dyspnœa, helps the expectoration, and brings about rapid cure both in children and adults; 2nd, pleuritis; 3rd, peritonitis; 4th, palpitation of the heart; 5th, hypertrophy of the heart; 6th, acute rheumatism, against which it is the most effective remedy; 7th, all inflammatory diseases in general, including those which follow surgical operations; 8th, acute mania. Besides the above, the following have more recently testified to the power of the Veratr. viride. Dr. Toland, of San Francisco, remarks: "The increased vascular excitement which accompanies hæmoptysis, is more rapidly quelled by this medicine than by any other. The acute rheumatism (common in its worst form in California) is more successfully treated by Veratrum viride than all other remedies hitherto tried. Independently of the moderating of the heart's action, the pains are mitigated; the secretion of urine is excited, and the metastases to the heart, which are so common after venesection, are prevented. To the surgeon this remedy is indispensable, as in traumatic fever it can lower the pulse to its normal standard. Dr. Backer, of Alabama, names it one of the most active remedies against convulsions of children, puerperal convulsions and chorea. Dr. Barker, Professor of Midwifery in New York, speaks thus of it: "We have, in the Materia Medica, a medicine much praised in recent times, which depresses arterial action without injuring the vital powers. For more than twelve years I have used it in puerperal fever, and in no other disease have I found the beneficial action so striking. This remedy, however, requires caution in its use, and the patient cannot be left out of sight if we mean to push the medicine to its full influence. It is true I have never had an unfortunate case with it, but I have observed very alarming, though transitory depression produced by it." The usual way of using the *tinctura Veratri viridis* is, to begin with 8 drops, and repeat the dose every 3 hours, increasing the dose by 1 drop at each repetition till the pulse falls, or nausea or vomiting come on; then the dose is gradually diminished so as to keep the pulse in its lowered state."

In connection with the above we may quote from the same journal a notice of the experiments of Dr. Cammerer, of Stuttgart, with *Veratrine.* "In acute rheumatism he gave up to 1 grain in 10 hours in doses of $^1/_{10}$ grain every hour. The immediate effect was violent vomiting and purging, with a sense of excessive prostration; of this I made the patients and attendants aware beforehand, in order to encourage them to go through with the treatment, for the good effects would soon be manifest. The pulse sinks to 70—80, and in the same proportion the heat of the skin falls, and if the skin was dry before, it now becomes soft and moist. At the same time also the pains abate, and the patient feels, though very tired, very comfortable. With this one grain the administration of the medicine is finished. In a few isolated cases only the pulse and heat of skin rose again a little in a few days, but never got to their former height. I had two cases of severe acute rheumatism in strong, hitherto healthy young men, in whom, on administration of the remedy as above, the disease was cut short, and convalescence began. Warm baths and good diet did the rest, and both were dismissed cured in the third week. In other cases, it is true, the disease became more protracted, but in a degree of severity much more bearable for the patient, or, at any rate, much milder than usual. There was always this advantage gained, that the rapid pulse and high temperature proper to acute rheumatism, and which consumes the strength of the patient, remained permanently lowered; and in by far the majority the pains were permanently mitigated and their duration shortened. I administered the medicine at first only in quite uncomplicated cases, but afterwards also in complications, and in valvular imperfections of the heart produced by former attacks of this disease, without any ill effects, and with the same success. Whether by this method the affections of the heart, otherwise so frequent, will be rendered seldomer, must be left for experience to determine. The more acute the case and the stronger the patient, the more favourable appears to be the action of the medicine. Diseases of the intestinal canal are naturally a decided contra-indication."

[Upon this we think it well to make some remarks more at length. The first thing that suggests itself is the similarity of this to the reported effects of the *Veratrum viride* in the hands of our American homœopathic colleagues, and also of the American allopaths, who seem to be using it largely. Dr. Peters is strong in his recommendation of *Veratrum viride* as fulfilling the symptomatic indications of lowering the pulse and calming excited action of the heart. Dr. Hale goes even farther, and considers it *infinitely superior to any remedy we possess* for fevers and inflammations; and that aco., bry., gelsem., tar., and rhus. cannot compare with it for certainty of action. All fevers, pneumonia, pleuritis, peritonitis, scarlatina—in short, wherever there is a hot skin, quick, hard full pulse, with any great local pain, congestion or inflammation—there is the sphere of its action, and we may rely implicitly upon it to bring down the pulse in a few hours from 120 or 140 to 80 or 60 in the minute, while the heat of skin, fever, thirst and pain, will proportionably diminish. These are wonderful statements, but unfortunately we are not told what becomes of the local inflammation in the meantime, and the unwelcome reminiscence forces itself on us that we have been told this same thing of blood-letting; and no doubt it did happen so at first, but we all know that the ultimate effect on the whole course of the disease was anything but favourable, for the still existing and uncured inflammation very soon set up the constitutional fever again, rendering the palliative equally necessary, but, alas! the patient not equally able to undergo it. Whether this Veratrum treatment will share the same fate as blood-letting, we cannot tell, but in the meantime it bears a most suspicious resemblance to the above allopathic use of Veratrine, and that again to the so lately vaunted cure of all fevers by the ten grain doses of quinine, which has already gone almost into the limbo of oblivion.

The veratrine treatment, we may remember, was $^1/_{10}$th of a grain every hour till 1 grain had been taken. Now one grain of veratrine corresponds to ʒj of the fresh root of the Veratrum album—a dose which, given at once, would be dangerous, if not fatal. Of the Veratrum viride, Dr. Hale is very particular that we get the real concentrated tincture that will render water turbid. Of this 3 drops are ordered every 2 hours: and we are recommended to stop with the patient and suspend the medicine upon the pulse flagging. The allopaths push it, 8 or 10 drops often producing vomiting. After all the above, we need hardly be surprised when we find Dr. Hale saying, "I will add that I have used the 3rd and 6th dilutions in fevers and inflammations, but without any effect, and, therefore, am free to confess that I think it *antipathic* to those affections."

Now, when we calmly reflect on these statements, the conclusion is forced upon us that, in reality, the observers have been led away with the sanguine hope that some wonderful new plan has been discovered, while, in reality, the only discovery is that of an extension to one or more new medicines of powers and modes of application that are already known of old medicines. For example, it is new that we have such a lowering power over the pulse in *Veratrum viride* and in *Veratrine*. But is it anything new to be told that we have medicines whose direct action is to lower the pulse? Did no one ever hear of Digitalis before? And has not its power of controlling the pulse excited hopes over and over again of getting a royal road to the cure of acute diseases by just giving a medicine that could counteract the cardinal symptoms? And have not all those hopes been disappointed? Also, in what way does this differ from the tartar emetic treatment of pneumonia? Contrast these all with the remarkable fall of the pulse observed, on a large scale, by Tessier, in the treatment of pneumonia by Bryonia in the 6th dilution, and we there see the difference between a real cure and a forced, violent disturbance of nature by the primary action of drugs. In the one case, the remedy being homœopathic and specific to this local inflammation and whole morbid state, the whole symptoms improve simultaneously, and the fall of the pulse is steady and permanent, while in the other the pulse is beat down by rapid and dangerous doses that required to be watched for fear of poisoning; and it is stated by Drs. White and Ford that, " in order to keep the pulse 15 beats below its normal standard, repeated doses, half as large, or nearly as large, were given every second or third hour, suspended when the pulse was low, and promptly resumed again when it rose." They remarked " that it was very easy to control the pulse when once reduced, but difficult to reduce it a second or third time, when, by neglect, it had risen beyond one hundred beats a minute." This is a very suspicious remark, and shows simply that the plan failed in cases; in how many, is not stated, nor is any account of the local inflammation given, nor indeed any statistics or any reliable data for judging of this method at all. There is, we fear, every reason to suppose that it is nothing more than another example of the ordinary allopathic treatment, whereby some accessory troublesome symptom is stifled for the moment, while the original disease is left to nature.

While, therefore, we think we should pause before being led away into the old false path of mere allopathic treatment by the brilliant qualities of a new and powerful medicine, we must not neglect its real value as a homœopathic medicine. As such the Veratrum viride has been found, according to Dr. Hale, in homœopathic dilutions, good in nausea and vomiting with prostration, vertigo with weak pulse, fainting, bilious vomiting, nervous headache, with dim vision and dilated pupils, somnolency of debility,

We have seen it of marked benefit in a case of dropsy, with disease of the heart, in which the patient suffered immensely from the palpitation and dyspnœa. On giving drop doses of the 1st decimal dilution, the action of the heart was calmed, and the legs poured out the serum of œdematous swelling with great relief. In a case of rheumatic fever with bilious congestion, and with pericardial rubbing sound, we found it also useful in the same dose.]—Eds.

Syphilization.

1. Facts, by Professor Hebra.

Between November, 1858, and January, 1860, twenty-four patients (primary syphilis, 3, secondary, 19; four of which had been previously treated with mercury; serpiginous lupus, 2) have been inoculated with matter taken from a soft chancre. In all cases the operation was repeated every two or three days, as long as any reaction (appearance of pustules) followed. No treatment of the wounds beyond the application of an oiled cloth. All morbid symptoms usually disappeared within from three to six weeks, after a varying number of inoculations: some reaching immunity with seven, others not with six hundred. An increase of weight was noticed in all those inoculated, except two.

Mercurial inunctions have no influence on the course of syphilisation. Where the patients are inoculated until immunity is reached, a relapse need not be feared.

While the experiments are continued, the fact has been already established that patients suffering from primary or secondary syphilis are perfectly well during continued inoculation from chancres, improve in appearance, increase in weight, and lose gradually all symptoms of the disease. The latter happens in the same manner as under the mercurial or iodine treatment, but more slowly.

The most rapid and certain cure of a syphilis is obtained by treating it with mercurials.—'Zeitchr. d. Gesellsch. d. Aerzte zu Wien.'

2. Fancies, by Dr. F. R. Fieber.

In a therapeutical view, syphilisation can only be compared to the isopathic treatment of cholera, with the potential evacuation of cholera-patients, of variola with potential small-pox matter, &c.

The augmented quantity of venereal poison, introduced into the organism, does certainly not increase the latter's energy and power of resistance, but diminishes them, like all other poisons.

The reported success is evidently more due to nature than to the infliction of seventy or a hundred fresh ulcers. Relapses seem to be frequent.

A mercurial treatment gives so satisfactory results that it needs no substitute in a dangerous innovation. Syphilisation may be tried, but only in desperate cases, where the rational methods prove of no avail.

Prophylactically, vaccination might be compared with syphilisation. But the cow-pox prevents small-pox—the lesser evil the greater, and to a certain degree only, while it is claimed for syphilisation that a disease cures itself, if implanted over again in the same organism, and protects the organism against a renewed influence of itself. The inoculation of variola-matter has never been thought of as a cure for variola.

Another analogy would be the capability to swallow large doses of opium without direct injury. Here, however, no immunity against the effects of the poison is claimed. Several ounces may result in death, where several drams are taken with impunity.

That syphilisation carries the patient rapidly through all stages of the disease to a point where the danger of further infection ceases, is an unproved hypothesis. Pyæmia may follow; pain, fever, impaired nutrition certainly do, and it is probably of some importance to the patient, whether to have one scar in some part easily covered, or to have hundreds over the chest and extremities.

Notwithstanding all these objections, judicious trials with syphilisation are justifiable, until its value is fully established.—'Zeitschr. d. Gesellsch. d. Aerzte zu Wien.'

BOOKS RECEIVED.

Homœopathy Explained. By Richard Epps, M.R.C.S.E. London, Epps.

Manual of Homœopathic Theory and Practice. By Arthur Lutze, M.D. Translated by C. J. Hempel, M.D. New York, Radde, 1862.

The North American Journal of Homœopathy.

El Criterio Medico.

Bulletin de la Société Médicale Homœopathique de France.

The Homœopathic Observer.

Medical Testimony in regard to the proper Mechanical Treatment of Joint Diseases. By Dr. H. G. Davis. New York.

On the Therapeutic Action of Atomic Doses. By Arthur De Noe Walker, M.R.C.S. Eng.

Printed by W. Davy & Son, 8, Gilbert-street, Oxford-street, W.

THE
BRITISH JOURNAL
OF
HOMŒOPATHY.

PHYSIOLOGICAL DIETETICS:
SOME PRACTICAL DISTINCTIONS BETWEEN FOOD AND MEDICINES.

Read before the Illinois Homœopathic Medical Association, May 22nd, 1862, *by* R. LUDLAM, M.D., *Professor of Physiology, Pathology and Clinical Medicine in Hahnemann Medical College, Chicago.* (*U.S.*)

As they are related to the human organism, all known substances may be divided into two classes, viz., nutrients and non-nutrients. With the one class the relation is the more intimate because of modelling processes which are constantly going on within that organism, since it supplies organizable elements for the preservation of *forms*. The members of the other general group are non-assimilable, excepting as they add to or modify the animal and organic forces of the economy. Nutrients, if rightly appropriated, are to be regarded as material *bona fide* contributions toward structural growth and development. The non-nutrients are merely the vehicles for those immaterial and imponderable agencies which, as they are applied, have a toxical or curative influence over the life-actions.

The distinction we have made is an important one. The line separating food and medicine has not been drawn with sufficient clearness. Nutrients have a definite line of action, and so also have the non-nutrients. Introduced into the human organism, each has its sphere of duty, and, as a rule, they are not convertible,—certainly not within the body. Each particle of the aliment which is to be vivified and organized is labelled, so to speak, like one's car-ticket, "not transferable." It does not minister directly to the increase of the organic forces, but is itself operated upon by them. Neither a man's physical, moral, nor yet his intellectual strength, are to be measured by his size merely, but by the available power resident in his body, whether it be lean or portly. Thomson's "little round, fat, oily man of God" for a minister, is not always the most efficient member of the cloth, nor would the obese Lambert rival the wiry Winship as an athlete.

The vigorous exercise of a gymnast developes his muscles and his appetite at the same time. The former result comes of a more active and thorough operation of the nutritive and assimilative forces; the latter from the increased physiological detritus of tissue, demanding an increased supply of material for purposes of repair. It is thus that the formative forces of the organism act and react with those which are dynamical and more demonstrative.

This, therefore, is the physiological distinction between food and medicine which the practical physician will always observe, *id est*, that nutrients are assimilated into, and concern more intimately, the *forms* which characterize the living structures; while each of the non-nutrients supplies a variety of *force* to the organism, which, varying in degree and quality, as well as in the time and method of its application, may be either toxical or remedial. In a literal sense there are no nutrient remedies. One might feed a patient for an indefinite period upon the attenuations, but the principal result would be to attenuate *him!* On the contrary, there is nothing of healing virtue *per se*, in the best chosen aliment. A rigid diet is sometimes, not very frequently perhaps, a wholesome expedient, and indirectly efficacious because it rids the organism of a source of increased embarassment, thus giving it an opportunity to react against the perturbing influences which have been brought to bear upon it. It may sometimes be serviceable also in permitting remedies to regulate more directly the play of the operative forces which have been disordered. But it does not relate to, or affect in a primary way, the therapeutic processes by which health is restored. At the same time, medicines are not to be regarded as sovereign for the relief of the earlier and the more remote consequences of diseased action.

The idea finds utterance in the fact that it is absurd for one claiming a familiarity with the laws of the human organism, of a rational physiology, to be attached to either agency as an exclusive means of cure. We might with as much propriety ignore the claims of the cerebro-spinal system to our recognition and study, upon the ground that because there is a ganglionic or organic system of nerves, we do not therefore need to familiarize ourselves with another, as to exalt a pure expectancy upon the one hand, or any method of drugging whatever upon the other, to the rank of a specific and universal method of cure. Such one-sided opinions have always been the bane of medical science.

Take, as an example, the two schools of physiologists, the chemists and the vitalists. Because zoo-chemistry is competent to explain the more crude and tangible conditions of life-action, the chemists insist that it must be capable of unravelling the subtler details of function belonging to the inner existence. With this class, all is a species of refined chemistry. But the vitalists are more transcendental, and refer the phenomena of functional activity in our bodies to the play of those intangible forces which are more ethereal and evanescent. With this school of philosophers the most varied processes are believed to result from the same moving power or spirit, the *animus* of the organism. They will strain a point to demonstrate, if it were possible, that the soul is the source of animal heat! and make themselves to appear equally ridiculous in ignoring the fact that organic chemistry can afford any plausible explanation whatever of the phenomena of human physiology. The truth lies between the two. Both are wrong, because both are too exclusive. "Not a step can the physiologist advance without the assistance of the chemist; but he must employ chemistry as a means of *exploration*, not of *deduction*—as a pillar, not a pinnacle—an instrument, not an aim." (Lewes.)

Precisely so is it with those physicians who insist that our attenuations are the only desiderata for the sick chamber; and with such also as having become sceptical of therapeutics, have determined to place their reliance alone upon diet, hygiene and the like. Both are out of the way, and only travel farther and farther from the goal the more radical they become.

It is with a view to illustrate the harmony of operation in these two sciences made practical, to show that they are by no means incompatible, that we have been induced to offer the present paper. In what follows we propose to discuss the subject of nutrients in their physiological and pathological, rather than in their chemical relations to the organism. At some future time we may set forth our peculiar views concerning the therapeutical spheres and *modus operandi* of the non-nutrients.

NUTRIENTS.

Permit us to recommend a somewhat original and more available classification of these substances than has hitherto been proposed. Nutrients are either *direct* or *indirect*.

1. DIRECT NUTRIENTS.—This class includes all the albuminoid or proteinaceous bodies, whether derived from vegetables or animals. They are the organic substances proper; the nitrogenized, or histogenetic elements, as they are sometimes called. Chemistry has discovered in them the four essential elements—carbon, oxygen, hydrogen and nitrogen, with a trace of sulphur and phosphorus; but because they are of organic origin, and adapted to the ever-varying necessities of the human body, in nourishing the blood and bone, the brain and muscle, and the remaining tissues, the most careful analysis has failed to detect in them a uniform chemical composition. In this respect they differ from all other nutrients. As found in the textures of the body, they have undergone a change which has fitted them to become an integral part thereof. The albumen of the liquor sanguinis is not identical with that which has been organized into neurine, any more than the crassamentum of the blood-current is composed of *bona fide* muscular fibre. In each example of their organization, these elements, albumen, fibrin and casein, indicate a progressive metamor-

phosis which initiates them into the more intimate anatomy of the bodily structures. Each of these principles, therefore, exists in the body under two separate forms, the soluble and the insoluble, the organizable and the organized. And there is no retrograde metamorphosis, which shall restore them to their original state, as found in the blood-plasma before the process of construction had commenced. The only means of outlet for this class of elements from the system is their physiological waste or moulting, and final discharge through the various excretions; unless indeed, we include the pathological processes resulting in suppuration, ulceration and mortification.

The functional use, if so we may term it, of the albuminoid substances is simply to minister under proper conditions to the textural repairs of the organism. They represent the bricks and mortar, the plastic material, from which the more important parts of the building are to be constructed. But we must not forget that, while intimately related to resulting forms, they are not endowed with an innate power of organization. Like true building materials, they must be moulded and operated upon by other and specific forces, or nutrition will prove a failure; a fact which has its illustration in the fibrillation of the blood-clot, as well as in pseudo-membranous formations, where the resulting product is an abortion of structure. The component cells of each particular tissue contain and impress the modelling forces which pertain to special histogeny, and are the constructors of each particular textural compartment in it. The cell-wall, or periplast, is albuminous, and, with its contained fluid, nuclei and nucleoli, represents an organ which is set apart to the double function of structural repair and reproduction. From an available plasma, and in conformity to a specific type and form, it is to re-construct, re-model and reproduce all the myriad details of microscopical anatomy.

The nutrition of the various tissues may be in excess or deficiency. In a case of tabes mesenterica in a child, for example, the more prominent symptom is a decided atrophy, marasmus or wasting away of the flesh. The little patient may eat inordinately, but still he remains a mere skeleton. The most nourishing aliment appears to be dissolved somewhere in the course of the digestive tract, but it fails to minister to the repair of the nitrogenized tissues. And why is this? Simply because its absorption into the lacteals, or into the portal system, or its more intimate assimilation into the structures, or both, is disordered. If the mesenteric glands fail to establish those changes in the albuminous and other peptones brought to them which indicate a step forward in the organizing processes peculiar to this department of nutrition, the histogenetic function is necessarily disordered. Or, if the little capillary rills continue to irrigate the tissues as in health, bringing the most appropriate food for the supply of their morphological and organic necessities, and still they remain impoverished and emaciate, we infer that the more intimate function of assimilation, and not that of absorption merely, is at fault. The aliment is the proper one. It has been digested, absorbed and emptied into the circulation, carried to the hungry tissues, the actual seat of the appetite, and yet their repair is not effected. The marasmus is due to the fact that the elements of growth are not rightly appropriated. The drain is a serious one, for it may sap and undermine the life-processes, so that, by and bye, the textures shall come to resemble the worm-eaten timbers of an old and ricketty edifice.

In the hypertrophy of an organ the formative forces are too active, cell-growth and development have reached their maximum. The nutritive resources are spent in a profligate manner upon the mechanism itself, it may be at the expense of its healthy function. Progressive assimilation has gone on uninterruptedly, but prodigally. The plastic material furnished has been greedily appropriated, and those little tissue-builders, the cells, have been as busy as bees, that nothing which they could work into the structures should be left out.

Here, then, are the two extremes of histogenetic function, neither of which is to be remedied by nutrients alone, but first and foremost by a means which shall be competent to regulate the formative forces of the economy, and subsequently, by supplying an aliment which shall be acted upon and assimilated by them.

Direct nutrients, therefore, include all that class of proximate principles which supplies the nitrogenized elements of the food. They are the material from which the living tissues, and in chief part, the liquor sanguinis and other organizable fluids are formed. Without their presence the tissue-repairs which are so significant of healthy life-action could not be perpetuated. They rebuild the solids, renewing the growth and development of organic forms and compounds through the agency of specific modelling forces which are resident, not in themselves, but in the tissue-germs, or cells, to which they are brought by the aid of absorption and of the circulation.

2. Indirect Nutrients.—This variety of nutrients may be divided into three classes, viz.:

a. Those whose chemical identity is preserved in the organism.

b. Those which, in the body, undergo some chemical transformation, and

c. Those which act by preventing an excessive tissue metamorphosis.

a. The first of these orders includes water, the chlorides of potassium and sodium, and the alkaline phosphates and carbonates of calcium, sodium, potassium and magnesium. They may be either of organic or of inorganic origin, but are themselves of an inorganic nature. They have a definite chemical composition, which, upon the most accurate analysis, is found to be the same, whether in the body or out of it.

In the synthesis of the animal tissues we discover them to be of service in one of two ways—either catalytically or mechanically. The former method of their union and use has an illustration in the presence of sulphur and phosphorus in the nitrogenized tissues; the latter, in the arrangement and deposit of compounds of lime in the bones, and of the carbonate of potassa in the muscles. Their assimilation is only approximative, and, with the exception of the sulphur and phosphorus already spoken of, they are not discovered in excess in any of the more highly vitalized tissues. We find them, however, in the osseous, the cartilaginous and the ligamentous structures. Circulating in the blood-current, they represent the more crude *material,* or stock-in-trade of the organism. The tissues belonging to a higher grade of organization are only indirectly related to them. Thus, for example, all the animal tissues of whatever variety are hygroscopic, and from its liberal supply by osmosis, water therefore becomes in some sort a proximate principle, necessary to their formation. It constitutes by weight about ninety per cent. of the entire body.

The chloride of potassium abounds in the blood-cell, and the same salt of sodium in the blood-serum. Indeed, these two compounds have been discovered in all the tissues and fluids of the body, excepting only the enamel of the teeth, and really fulfil such important subordinate functions in the economy, that, like the hydro-carbon furnished by the great sugar refinery, the liver, their production must be placed beyond a peradventure, so that mere caprice of appetite or diet shall not occasion disorder. The chloride of sodium is of as incalculable service in holding in solution the albumen, as ammonia is in preventing the coagulation of the fibrin of the blood-current. It supplies a chemical condition of absorption and of exudation, whereby the functions of secretion and of excretion may be properly performed. It ministers to the election or separation of those elements which are to be vitalized from such as are innutritious and worthless.

The salts of lime, which contribute to the firmness and solidity of the skeleton, are deposited mechanically in the osseous cells of the bony fabric. Chossat produced artificial rickets in certain inferior animals by restricting them to food which contained little or no phosphate of lime. The form of fragilitas ossium common to old people, in whom the neck of the femur is so often and so easily fractured within the capsular ligament, is due to an abnormal excess of the earthy salts over the animal constituents of this bone.

Without specifying those farther physiological details concerning this department of zoo-chemistry, already familiar to my hearers, permit me to direct your attention to a significant fact pertaining to this class of "principles" which appears to have been almost entirely overlooked by medical writers. I allude to their dual character and capacity as indirect nutrients and as remedies, when prepared and introduced into the organism under different forms and conditions.

In crude substance, the chloride of sodium taken with our food is a proximate principle capable of becoming a part of the typical solids and fluids of the body; but dynamized, or triturated, and administered in the form of natrum muriaticum, it is found to have a curative sphere which is altogether foreign to it as a simple condiment. Excepting water only, the same is true of every other member of this class of indirect nutrients. And so also of other substances not enumerated in the foregoing catalogue, as carbon, iron and silica. Whether they will prove nutrient or remedial will depend entirely upon the form in which they are introduced into the organism.

It is just here that we shall discover the line which separates food from medicines. This is a great desideratum among medical men, as is proven by the frequent attempts and failures to fix upon its precise location. Upon this subject Dr. Chambers, in his word on Digestion and its Derangements, says: "When instinctively or rationally they are taken by a body in health, with the intention of keeping up that health, they are FOODS; when administered to a sickly body, that is one whose physiological actions are inconvenient to the individual, with the intention of restoring health, they are MEDICINES. Whether an article is food or medicine depends entirely on the intention, and on nothing else."

In this extract nothing is said of the dynamization of these principles, but we are expressly informed that the will of the giver is to determine whether they shall act as food or as medicines! There is no recognition of the fact that this is the more prominent class of substances which do not undergo some manifest chemical or vital change when introduced into the living organism, and that of necessity they must be more reliable as remedial agents than either the histogenetic or the calorifacient principles contained in the food.

Dumas determined long ago, and more modern chemists endorse the view, that the manifestation of peculiar properties by different bodies depends not on the nature of the atoms, but on the mode of their arrangement. Here then is the key to the almost marvellous virtues of dynamized matter. By a simple mechanical means which so modifies the atomic arrangement of particles in the carbonate of lime, for example, that substance is changed from a crude nutrient to a remedy, the calcarea carbonica, which possesses a wide range of action and a most wonderful efficacy. As common chalk it may be eaten in considerable amount without causing any manifest derangement of system. If not assimilated by the nutritive forces into one or another of the less vitalized textures, it finds its way out of the body through the emunctories. But change the molecular arrangement of its particles by mechanical subdivision, as the mercury is changed in the blue mass, or the fat globules of the food are changed into globulets, or even into Gulliver's molecular base, by intestinal succussion, and new properties are eliminated which indicate a range of curative action. And, strangely enough, when so prepared, we find there is such a complete alteration in its properties that the calcarea carbonica, once a nutrient and ordained like all its class to be fashioned and moulded, operated upon by the modelling force of the cell, by this new arrangement of its atoms has acquired an entirely new relation to histogenetic processes. *Now* it may modify these same forces when they are disordered. It has become possessed of a *therapeutical* relation to nutrition. Administered in the tabes mesenterica, it well-nigh deserves the title of "specific," because of its peculiarly pleasant and satisfactory action in aid of the progressive assimilation of the plasma. It ministers to tissue-repairs, not by supplying material for the growth of the atrophied structures, but by modifying, qualifying and perhaps regulating the operative forces which are in charge of this department of organised life. Just as by transmission through the cow the small-pox virus becomes a preventive of that loathsome disease in the human species, so by a voluntary means, and not a mere intention only, are we enabled to transform this class of nutrients into remedies.

Nor is this principle of duality of action, as nutrients or as remedies, peculiar to the calcarea carbonica and its congeners. Berzelius taught that there are few elements whose properties are not completely altered when the conditions which they have assumed are changed.

b. The second division of this class includes those principles which, although they are exclusively of organic origin, are nevertheless but slightly organizable. These are the non-nitrogenized substances: starch, the various sugars and fats or oils. They have a definite chemical composition, and consist of the three essential elements—carbon, hydrogen and oxygen. When hydrogen and oxygen exist in equal proportions in any one of these proximate principles, we have a carbo-hydrate, as starch and sugar; otherwise the chemical union of these gases with the carbon produces the hydro-carbons, as the various fats or oils. For this reason the one class is inflammable while the other is not. Both are believed to contribute indirectly to the activity of the nutritive processes by ministering to one of its essential conditions—the maintenance of a proper animal temperature.

The idea thus formulated by Dr. Thompson, the founder of a once famous medical sect, that "heat is life and cold is death," is, with certain qualifications, a better physiological than a therapeutical maxim. A temperature in the body of 98° to 102° F., is found to be a necessary requisite of the life-actions. Not only are the more tangible and familiar functions of digestion, respiration, and the circulation directly interested in calorification, but absorption also, and the more intimate nutrition of the tissues by osmosis through their myriad little periplasts, not to speak of innervation, animal and organic, or of those intellectual functions which personate the presiding genius of the whole.

Heat represents one of those chemical conditions which constitute a point of departure and return in the arc or circle of organization. It certainly supplies a chief source of the mechanical, or dynamical phenomena of life. If excessive, it implies danger from a too rapid detritus of tissue, and a too prodigal play of the operative forces of the economy. If deficient, for any considerable time, that the organic resources are at a low ebb, and life-functions and phenomena imperilled thereby.

Not that all pathological states depend for a primary cause upon a disorder of calorification, evidenced by what is familiarly termed a fever, or its opposite; but that, as fever has been defined to consist in a general perturbation of function, so we find that this particular function never fails to be implicated in the disordered action.

The oxidation of this class of Proximate Principles, as introduced along with the food, is regarded as an important source of animal heat, and is believed to supply a very important condition of its development. When subjected to the influence of the digestive process, each of the aforesaid elements undergoes an early and decided change in chemical character. Each loses its identity: the starch, by the action of the salivary and pancreatic fluids upon it, is converted into a species of sugar; the sugar into lactic acid, thus furnishing to the blood a solvent for the phosphate of lime, and the acid which, with the alkaline bases, is to form the lactates; and the fats or oils, by oxidation, into so many equivalents of caloric, or, by mechanical deposition into the tissues, into adipocere. They minister indirectly to the morphological interests by regulating one of the more vital conditions of assimilation, viz., the maintenance of that degree of temperature which facilitates the absorption and ready appropriation of a proper aliment. Their use is none the less important because it is a subordinate one; none the less nutritious for furnishing fuel-food, and not direct tissue material capable of being transmuted into *bona fide* flesh and blood.

But more modern physiologists insist that Liebig's doctrine, concerning the non-nitrogenized constituents of the blood, that "they take no direct share by their elements in the formation of organs, and have no vital properties," is not tenable. Fats and salts are necessary, say they, to the formation of a cell, and if of a single cell, then of fibres also. They thus claim that these elements are not the mere accessories of organization, but essential requisites, each and all of them, to the formation of a healthy plasma,—the concentrated solution of all the bodily tissues, and that they are tissue-makers as well as heat-producers.

Such a view authorizes the classification of the members of this group, and especially of the oily substances, among the proximate principles of organic life. And the theory finds a confirmation in the manner in which the cod's liver oil, and other fatty nutrients are disposed of in the body. Prescribed for the relief of the emaciation of phthisical patients, or for the fattening up of those who suffer an atrophy of tissue from other causes, and in other diseases, as the Germans give the dog's fat in marasmus, they will sometimes increase the weight and plumpness of the individual in a very considerable degree. No one, however, claims for them the possession of any proper remedial virtues, but simply that they furnish the materials requisite to the more normal development of some of the bodily textures.

c. Thirdly, we have those substances which nourish indirectly by preventing an excessive tissue metamorphosis. The more prominent members of this class are alcohol, tea and coffee. It is but recently that the true physiological sphere of action of these substances begins to be understood. First they were classed as *stimulants,* and viewed in the light of remedial agents, possessed of curative virtues, as opium and other narcotics. More recently they are spoken of as *calorifacients,*—supporters of combustion. The oxidizable properties of alcohol within the body were supposed to be the same in kind and degree with its inflammable properties in the chemist's laboratory. If spirit would burn readily and almost spontaneously, in the test-lamp, why should it not lighten up the darkened avenues of the blood-tide?

Furthermore, certain phenomena signifying an increased animal temperature are known to be manifested directly after its administration, and since, according to the Leibigian doctrine, such a result could only arise from combustion, the case seemed a plain one, that alcohol was a carbonaceous substance especially useful in aid of the function of calorification.

What was true in explanation of the *modus operandi* of alcohol in the body, was believed also to afford the true key to the effects of tea and coffee upon the system. No one could properly claim for these substances that they ministered directly to tissue repairs. Each was thought to be a more or less prompt and decided member of the calorifacient class, which by combustion was decomposed within the body, and found exit therefrom at the pulmonary mucous membrane, in the form of carbonic acid gas and watery vapor. Berzelius and Müller deny that alcohol ever finds its way as such into the urine.

But, in its turn, this view also is exploded by the researches of more recent and satisfactory explorers. Alcohol and its congeners are found to differ from all the proper alimentary substances with which we are acquainted. There is not one among the real alimentary "principles" which we have enumerated that escapes the system unchanged, excepting these. We are of course speaking of a healthy state of the organism. Albumen may, indeed, filter away through the tubular septa of the kidneys in albuminuria; and sugar through more than a single emunctory surface in diabetes, but, nevertheless, the rule holds good that alcohol is the only substance not of inorganic origin, which is expelled unchanged from the system by means of the excretory processes.

Drs. Ogston and Percy have demonstrated beyond a doubt that alcohol is neither assimilated nor consumed in the body. They discovered it under its identical form, and possessed of its identical chemical properties, in the substance especially of the brain and liver,—upon which it fastens by a powerful "elective affinity," and by which tissues it had to be separated from the blood; and also that after it is taken, the various emunctories are continually engaged in its elimination. This elimination was found to be a progressive one, and to be carried on more or less actively through the three great excretory surfaces; the pulmonary mucous membrane, the cutaneous septum, and the kidneys, and to continue for a greater or less duration of time, a period which is in exact ratio with the quantity of alcohol which has been administered. Indeed it is a matter of everyday observation, that alcohol in any of its combinations, and all of the anæsthetics, are more or less powerfully diuretic.

Still later experimenters, among whom the more prominent are Drs. Böcker, of Germany, and Hammond of the U. States, have shown the members of this class to be possessed of a peculiar power as "arresters of metamorphosis." This more recent view looks toward a physiological explanation of their sphere of action. If we remember that waste and repair is the law of life in the tissues; that the grade of each of the animal structures is marked by its vascularity; this vascularity being an index to the activity of its physiological metamorphosis, the importance of determining whether or not this order of indirect nutrients are of service in the regulation and control of such important processes, is at once apparent. More than this, if the opinions of Drs. Böcker and Hammond are well grounded—as their published experiments would seem to prove—alcohol, tea, coffee, and the like, are to be classed among the foods, and not among the medicines. Hammond proved that where food was sufficient, alcohol was injurious; but that, where it was deficient, or of an improper quality, it might arrest or retard the too rapid waste of tissue material. A labouring man who exceeds the strength of his rations in his outlay of physical force, flies to one or another of these substances, thinking them capable of supplying any deficiency in proper alimentary materials. He *knows* them capable of aiding him in his extremity, and resorts to them without fear of ultimate consequences. But the result in patching out his available force is not because of their being *stimulants*, in the old sense of that term; not because they are *calorifacient*, and minister to his muscular power through a proper regulation of the bodily temperature; but for the simple reason that they turn the key upon the destructive assimilation of the tissues, and thus economize the nutritive resources. They do not supply a direct nutriment, for as we have seen, they are eliminated as speedily as possible, unchanged from the organism; are not heat-making; but so regulate the drain through the various emunctories as indirectly to make an ounce of food go farther than otherwise it would. Moleschott calls alcohol "the savings' bank of the tissues." It is certainly as proper to rank it as food, as any substance which is not histogenetic, as for example, starch and sugar.

We need not enlarge upon the theme of eloquent physiologists, that, not only every species of bodily exercise, but every thought, and every effort, or emotion of the mind, involves an expense to the textural economy, which must be met. Alcohol, tea, coffee and tobacco, have each and all a calmative influence, which depends upon the facility with which they arrest, or more properly speaking, retard structural metamorphosis, and so husband the nutritive resources of the organism. Alcohol finds its way most rapidly into all the tissues, and the same is proved to be true of coffee when given as an antidote to most of the narcotic poisons. This very diffusibility adds to their seductive charm. It makes them the more dangerous in the hands of the weak-minded and irresolute. Our men of business, whose mental friction is rasping away their tissues too rapidly, and threatening a worse bankruptcy than that which they hope to avert through very excess of toil; and thousands of others, to the seamstress who has grown intemperate upon tea and toast as her sole aliment, are driven to the use of this class of substances as the most available temporary nutrients at command. And in this we have the key to their physiological action, the only simple and yet satisfactory method of explanation for their good effects in conditions of the system in which there exists a want of balance between waste and repair, where, so to speak, the leakages are endangering the good ship, and the indication is most manifest. There *may* be conditions of the system in which they shall act both in a nutritive and curative manner, in which a little of alcohol or of tea or coffee, appropriately administered, might serve to save life; and where stronger food on the one hand, or medicine alone upon the other, or both these, might fail of any good result.

The following practical hints and inferences are deducible from the foregoing views upon this subject:—

1st. We should study the subject of dietetics from a *physiological*, as well as from a *chemical*, stand-point.

It is a chief fault of Liebig's classification of food, and all modifications of it, that it is exclusively chemical. His tables begin and end in the laboratory, as if life processes and peculiarities did not transcend chemical analysis. It is true that we must not ignore the claims of the latter, for it is an old maxim, that "the man who holds the ladder at the bottom is frequently of more service than he who is stationed at the top of it." It is simply impossible to keep life within the organism, unless the conditions of its stay are made certain. But, in its broadest sense, nutrition does not concern alone the mere statics of structure. It is intimately connected with, and responsible for, the proper play and performance of the bodily functions: If, therefore, we would study the relations of a proper aliment to the human organism, we must lay a rational physiology, as well as chemistry, under contribution, toward that end.

The worthlessness of exclusively chemical diet-tables, designed for particular diseases, is shown in the medical history of the diabetes mellitus, the more modern and successful physicians having discarded them *in toto*.

2nd. It is not desirable to be super-scientific, or rather, too exacting of nature, insisting that she shall accept and appropriate what we proffer as aliment, and be satisfied therewith.

The best general criterion for the food is the appetite, providing always that it be not too depraved and morbid. The stomach is the indicator for the system, and it does not cry alone for the supply of its own needs. One and singular of all the miniature members of the cell-republic send up their petitions through it. The appetite is really in the several tissues themselves. The organism *is* a cell-republic, the stomach its central bureau of original supplies, the blood its treasury. An independent existence—state sovereignty, if you please—would not be tolerated in our natures, any more than in our nation! If it were carried too far, sloughing and death would be the inevitable result.

The simple lack of a little vegetable acid in the human system once kept the whole of the ships, the hospitals on shore, and dead-houses everywhere, full of the victims of a disease which is now known only to the history of medicine—the scurvy. When my patients crave acids, I allow them, but in a form not to be harmful. Indigestible cucumbers, walnuts, cabbage, etc., are always unwholesome, and should be forbidden, especially since it is possible to introduce the desired acid in some other way. Oranges, affording a mild strength of citric acid, are often grateful, and salutary also. I am much in the habit of prescribing them in biliary and anginose disorders, and have cured cases of aphthæ, and of stomatitis materna with them alone. The most aggravated case of pyrosis which ever fell under my observation was cured by eating tart apples, and every member has heard of diarrhœas and dysenteries being cured by buttermilk, cider, lemonade, etc., etc.

Mrs. K—— was dying in the early convalescence from typhoid fever. The crisis had passed a few days previously, and I found her sinking rapidly from a mere lack of vitality, of available strength with which to rally. She had had a morbid desire for raw oysters and vinegar—something which she never ate while in health—but these had been denied her. I permitted them, and prescribed nothing else, excepting a gradual change to a more nourishing diet, and she recovered rapidly.

J. M. W., Esq., had been forbidden to eat baked apples, on account of a recent attack of autumnal dysentery. He was extremely emaciated, scarcely able to crawl around the house, and had desired the above food for a fortnight. At the end of this period he despatched the family, save a young daughter, by subterfuge to church on Sunday, got hold and ate freely from a plate of apples, and convalesced very rapidly without any ill results.

Such cases are familiar in every one's experience, but do we learn the practical lesson taught by them? One's obliquity of vision should not lead him astray. We must sail the ship to, or alongside of nature, and we shall not go very far in the wrong. We might with as much propriety deny our patients sleep, as deny them food. A patient's eyes may be "larger than his stomach," but the true physician has the tact to discern the disparity. It is useless to speculate upon the value of this or that regimen, or of this or that chemical *rationale*. We must bring the abstract and the actual together, and then we shall discover that, in the matter of dietetics, as well as of distinguishing between food and medicines, homœopathy and common sense are not so incompatible after all. We should carry out the principles of the golden rule, and not set reason and revelation at defiance by our too rigid diet tables for health or disease.

3rd. Medicines deal primarily with *forces* and secondly with *forms;* food primarily with *forms* and secondly with *forces:* only remember this one, well-defined line of separation, and you need never confound their spheres of action, or fail of the best and most appropriate results in their employment.

PSYCHOLOGICAL PHYSIOLOGY.

By Dr. MacGilchrist.

Perhaps no class of intellectual men has received greater homage than the metaphysicians, and perhaps none has less merited the commendation bestowed so freely and so generally. The world, in the past at least, has taken the metaphysicians on their own showing and at their own value, as it has often done the respectably pretentious, and has dignified with the name of subtle analysis that which is simply unintelligibility, and called profound what is weak, vain and preposterous. An inability to distinguish between words and ideas has always been at once the vice and the salvation of metaphysics. This inability on the part of the greater number of mankind has indeed been the salvation of metaphysics, which could never otherwise have attained the reputation of *a science of ideas,* since it is, in truth, little better than a science of words. It now begins to be very generally suspected by the world of letters, that this subtle but yet noisy dog has had his day; and there are symptoms very plainly discernible of a general tendency to abandon the barren field of metaphysics, in favor of another branch of philosophy, which till very lately has been a twin of the mist, but which promises, even in Germany, the home of speculation by excellence, to supersede this hag-ridden philosophy called the metaphysical. We allude to psychology.

As distinguished from metaphysics, which is the science of *abstract speculation,* psychology, as most people know, is definable as "the science of the human mind." To those who, in these practical and earnest days, are not mis-spending their time in vain efforts to square a circle, but rather devoting themselves to the true, *i.e.,* the physical sciences, the use of the word *science* in the psychological no less than in the metaphysical connection, must seem somewhat out of place; and it must be owned that to talk of a science of speculation, especially, involves a contradiction in terms. As regards psychology, however, there seems ground for hope that, speculative as it has hitherto been, this phase of philosophy has more to recommend it than mere interest in dialectics. It is a good sign of her that she has quarrelled with her so-called sister science—she of the pure speculation, metaphysics—and a still better sign, that she shews a leaning towards that side of the problem she professes to solve which was wont to be sneered at, and is still sneered at by the metaphysicians, as the *material* side: in a word, that she wooes the advances of physiology.

It is the object of this paper to shew part, at least, of what has been doing of late, both by the professed psychologists and by the physiologists, in a common direction towards the inauguration, if not the consolidation, of an alliance between the philosophy of mind and the first of the organic sciences—physiology. In doing this, we have properly to concern ourselves only with psychology on the one hand, in certain of its aspects, and with physiology on the other; but inasmuch as speculative science proper, or metaphysics, denounces as vain all attempts at reconciliation of mental and physical manifestations, of the kind at least we are about to pass under review, we may glance first at the present position and past history of this purely speculative philosophy which essays to stop the way. Here, however, we shall court brevity to the utmost.

We may just begin by quoting from a recent and a student or standard work on metaphysics, an utterance which sufficiently indicates the pretensions in which that so-called science still revels, and the unblushing effrontery with which it seeks to make a virtue of parading its own nakedness, whilst ignoring every other phase of philosophy:—"It will be observed that this system (metaphysical) is antagonistic, not only to natural thinking, but, moreover, to many a point of psychological doctrine. Psychology, or 'the science of the human mind,' instead of attempting to correct, does all in her power to ratify the inadvertent deliverances of ordinary thought, to prove them to be right. Hence psychology must, of necessity, come in for a share of the castigation which is directed upon common and natural opinion. It would be well if this could be avoided; but it cannot. Philosophy (metaphysical) must either forego her existence, or carry on her operations corrective of ordinary thinking, and subversive of psychological science. . . . . . To prevent, then, any mistake as to the *object*, or *purpose*, or *business* of philosophy [metaphysical always, observe], let it be again distinctly announced that the object of philosophy is the correction of the inadvertencies of ordinary thinking; and as these inadvertencies are generally confirmed, and never corrected, by psychology, it is further the business of philosophy to refute psychology. This is what philosophy (or metaphysics) has *to do*. But this is only the negative part of philosophy. In rectifying the inadvertencies of popular thought, and in subverting their abetment by psychology, philosophy must of course substitute something in their place. Yes; and that something is TRUTH—so that the object, the business, the design, the purpose of philosophy, fully stated, is this, which may be laid down as the *definition of metaphysics*: 'Metaphysics is the substitution of true ideas—that is, of necessary truths of reason—in the place of the oversights of popular opinion and the errors of psychological science.' That seems a plain enough statement, and it may serve as an answer to a question by which many people have professed themselves puzzled,—what are metaphysics? . . . . This definition may serve to let people know precisely *what* philosophy or metaphysics proposes,—what the instigating motives of speculative inquiry are; and it may also serve to clear people's heads of the confusing notion that metaphysics is, in some way or other, vaguely convertible with what is called 'the science of the human mind,' and has got for its object—nobody knows what—some hopeless inquiry about 'faculties,' and all that sort of rubbish. This must all come down, when philosophy, which has hitherto been going about like an operative out of employment, seeking work and finding none, is put in a fair way of obtaining a livelihood by having discovered her proper vocation, and got something definite to do."*

---

* *Institutes of Metaphysic*, by Professor Ferrier. 2nd edition, Introduction.

After a staid perusal of this modest utterance, wherein its expounder ignores every other phase of philosophy, and assumes for his so-called science a monopoly of the "something" termed emphatically "truth," it need not surprise us that, metaphysics being avowedly "antagonistic to natural thinking," a great many otherwise intelligent people should still go about asking what the dickens they (the metaphysics) are all about; or that natural thinking should still prefer to Professor Ferrier's definition an older, a wittier, and we much fear a truer one, which endorses metaphysics as *l'art de s'egarer avec methode.* Notwithstanding the vast libraries that have been filled with works on metaphysical philosophy, many of them ingenious and subtle to the verge of phantasy, there is only one question of all their elaborate speculations—there is but one deserving the serious attention of mankind. It is the question as to the origin of our ideas. Most metaphysicians have given this question the go-by, *assuming*—what it is indeed almost necessary to their speculations to assume—the still unproved, and, as many think, the *unprovable* doctrine of innate ideas; and very few have had the candour or the courage to acknowledge the fundamental importance to speculative philosophy of this question, which is still at issue, although the tendencies of physical science are certainly opposed to this metaphysical notion of innate ideas which has been such a god-send to the philosophic system-mongers. It is not strange, indeed, that the schools of abstract philosophy should have assumed this question for the most part, since how else could they have lived on flourishingly through the centuries of interminable talk? And when the question has been fairly analysed as the foundation of a philosophy of consciousness, the *intuitive* philosophers have generally resented it as an affront to them and their craft. No modern thinker, for example, has been more maligned, and robbed of what philosophic originality he had the courage to utter forth, than John Locke. Locke had the misfortune (in view of his reputation as a thinker) to have meddled with positive science before he became a mental philosopher: he was a physician, and practised our arduous profession, for some years at least, at Oxford. What sort of reproach this was to him among the metaphysicians whom he shouldered, is to be measured by the difference, in a really scientific point of view, between his times and ours. Then positive science was at a discount, and no attainments were held admirable or valuable which were not either classical or metaphysical. Locke, accordingly, was written down by his contemporaries, and his doctrine has been mis-stated by the metaphysicians generally. He has been called a mere popularizer of Hobbes, and charged with reducing all knowledge to sensation, because he held, as Aristotle enunciated more than 2,000 years before, that "nothing enters the mind of man but through the medium of his senses."

But though he raised no new question in inquiring anew into the origin of our ideas, Locke was certainly the first modern thinker who showed conclusively that the fabric of scholastic philosophy was based on an *assumption*, that assumption being the received doctrine of innate ideas, and who logically insisted on the necessity of trying that question first, before, that is to say, the airy systems of the intuitive philosophers could come into court or deserve a thought. This was his crime, for which your pure speculators can never forgive him. But in further deciding against the doctrine of innate ideas, Locke did not hold, as they have represented, with Hobbes—whose dictum was, *nihil est in intellectu quod non prius fuerit in sensu*—that sensation is the only source of our knowledge; but only that sensation is the primary or immediate, there being another, a secondary or mediate source, viz., reflection. Popularly stated, Locke's doctrine is, that the mind does always found its ideas on some sensible object, either immediately or *via* sensation—as a man, a tree, &c.,—or mediately, *via* reflection, and in the last analysis of its own workings—as when it forms the ideas it has of virtue, vice, futurity, and the like. And the general inference of this doctrine is, that those so-called ideas, no less than the words in which they may be clothed, which are not referrible, either mediately or immediately, to sensible objects, are devoid of sense and meaning. It is manifest that tested by such a doctrine as this—assuming it to be founded in fact—metaphysics, as a whole, are little better than a curious pile of useless speculations—ideas without a foundation, and words devoid of meaning.

Thus much of Locke, who of all the metaphysicians of modern times stands out foremost in the influence his system has exerted, and despite the carpings of his critics is yet destined to exert, on philosophy. By sapping the assumption on which the great mass of metaphysical speculations are based, he in a manner overthrew metaphysics, and erected in its place a psychology, and paved the way for that reconciliation which, as we shall shew, is now in course of being effected between the phenomena called mental and those termed functional or organic. More clearly stated in some parts, or rather we should say, expressed in more modern language, and certain of its weaker points eliminated (such as some of his notions on abstract ideas, and on the subject of impulse), Locke's views present a near approach to that "common sense" philosophy which the Scotch school of metaphysicians would fain have arrogated to themselves.*

Passing over the several metaphysical thinkers who, between

---

* In an article in *Macmillan's Magazine* for July of this year, entitled "The Real World of Berkeley," Professor Fraser, of Edinburgh, classes Locke with "Berkeley and the philosophers" (meaning, we take it, the idealistic metaphysicians), on the ground, apparently, that "Locke took for granted that what we are conscious of in sense is not at all the real thing, and that we could be conscious in sense of an idea or resemblance only of the real thing, which itself exists *behind* its merely ideal representation in the consciousness."

Now, although Locke's principles certainly involved the subjectivity of all our knowledge, the distinguishing characteristic of his philosophy of ideas is, that all our knowledge is referrible to experience. Hence he took for granted —he held and could not but hold—that there was an objective as well as a subjective fact in the consciousness. This is what separates him by a great gulf from Berkeley and the idealistic philosophers, who held that the subjective fact is the whole. Their conclusions, accordingly, are not merely different but exactly opposite. For Berkeley shewed (as he believed) that we have no experience of an external world apart from perception, therefore—the conclusion is inevitable—matter is a figment; a conclusion it fairly puzzled the other philosophers to overthrow, till Hume gave it the *reductio ad absurdum*, by showing, in his turn, not only that matter is a figment, but proving incontrovertibly that, by the same token, mind is a figment too. Such are the triumphant results, how important to humanity! at which the idealistic philosophers—in whose company Professor Fraser incontinently

Locke and Kant, have given their names to systems* more or less famous and more or less evanescent, we come to the great German philosopher, on whom we must expend a few brief sentences, as he is the most noticeable, in his later era, in relation to the fundamental question which Locke so pitilessly thrust in the teeth of hungry speculation.

It might be almost sufficient to say, that during the century which separated these two philosophers, no progress was made—none whatever—towards *proving* the *assumption* on which metaphysics rested; and that metaphysics still does virtually rest on the self-same assumption. But as the ground has been slightly shifted, we must advance proof of the last part of this assertion at least.

The pretensions set up, by certain of his verbose disciples, for Kant and his philosophy are great: these enthusiasts speak of the man as having "the highest and strongest claims to the gratitude of mankind;" but for what does not very clearly appear, since they have freely accused one another of a remarkable incapacity to fathom or comprehend his system, and an obscure oracle has surely not the very highest claims on the gratitude of the perplexed inquirer. Kant called his system *critical;* and if we allow that he analysed the operations of the mind ingeniously, and deduced from them certain principles of certitude, which, however, he himself admitted could not be applied to things *beyond* what he held to be the mind—were in fact limited to its ideas—we give him his due, and probably allow all that he claimed for himself as a psychologist.† But it is on another head that his followers are chiefly jubilant. They imagine, many or most of them, that he has laid the ghost of Locke, and settled that little matter about the origin of our ideas conclusively.

---

finds Locke—such the edifying conclusions to which those ingenious gentlemen come at last!

* The chief of these, after Leibnitz, are Berkeley and Hume, and their reactionary counter-parts, the heads of the Scotch, or "common sense" school of philosophy, as it was self-styled.

† Although he compared himself as a philosophical reformer to Copernicus!

Stripped of its surroundings, the doctrine of Kant here is plain enough. He adopts innate ideas, but not in all their nakedness, nor without advancing something in plausible illustration or proof. By a change of language, by substituting especially the term ***necessary truth*** for innate idea, he seeks to wrap the latter in fresh coverings, as 't were; and his followers have hugged the delusion that these may not be readily torn off, which, however, we believe they have been most effectually.

The vital part of his system, then, is that which claims for the ideas of primary intuition necessary truth, and thus makes knowledge, so far, independent of experience. Whence Kant's so-called law, which his followers have compared to an axiom of Euclid, and regarded as the crucial test by which all mental operations must be tried:—"***What truth soever is necessary and of universal extent is derived to the mind from its own operations, and does not rest on observation and experience;*** as conversely what truth or perception soever is present to the mind, with a consciousness not of its necessity but of its contingency, is ascribable not to the agency of the mind itself, but derives its origin from observation and experience." It will be seen that the first part of this proposition, which we have italicised, contains the point in dispute, the thing to be proved. Kant attempted to prove it, as we venture to think, by a kind of reasoning which is circular. Without staying to show this specially—he advanced, that the mind forms synthetic no less than analytic judgments, and that one class of its synthetic judgments is based on *à priori* ideas. This is just another way of saying that there are certain "necessary truths," or inherent, or primitive, or "innate" ideas, which are, of course, independent of experience. Well, the truths or axioms of geometry, the relations of number and mathematics, are pointed to as one class of these necessary truths or "synthetic judgments *à priori*;" and what he termed "truths of generalization"—such axiomatic dicta, for instance, as "every cause must have an effect"—as the other class.

Now, taking the latter first, this class of so-called *à priori* ideas has over and over again, and from different points of view, been shewn to be resolvable nebula. The *word* effect implies as a correlative the *word* cause; but the *thing* we see before us does not imply the existence of some *other thing* which *caused* it: and our judgment that it must have had an antecedent cause is therefore purely synthetic and beyond the region of experience. So say the Kantists. But when we ask them, If *every* existence must have had a cause, how can the mind arrive (by the road of causation) at a *first* cause?—they can give no intelligible reply; and the attempt to arrive, by this road, at proof of the necessary existence of Deity has in the hands of certain of Kant's followers tended, it may well be, to suggest atheism where it had no previous place in the mind. In fact, the necessary truth of causation is not inherent in the mind. There is indeed *a necessity of belief* in causation; but why? Simply because this belief is founded in experience; it is nothing more than our experience generalized; and as has been well said, and amply demonstrated—though to enter into special proof of it would lead us too long a dance here—"to assume that any such universal idea is independent of experience, is to forget that what experience may not guarantee it may *suggest;* and the boasted universality and necessity of our ideas is nothing more nor less than the suggestions of the understanding, operating in obedience to a law of human nature, and generalizing from particulars, converting them into universals."

But neither do the relations of number and the truths of geometry respond to Kant's synthetic judgments *à priori*. Three and two make five; we cannot conceive it to be otherwise; therefore this is a necessary truth. It is so, but not an *à priori* truth, not an innate conviction, since we have been *taught* the relations of number, which prove to us objectively as well as subjectively that such is the fact.* As little as the necessary truths of number, are the necessary truths of geometry *à priori.* "The points, lines, circles and squares," says John Stuart Mill, *System of Logic*, Vol. I., "which any one has in his mind, are simple copies of the points, lines, circles and squares he has known in his experience. Our idea of a point I apprehend to be our idea of the smallest portion of space we can see. We cannot conceive a line without breadth; we can form no mental picture of such a line: all the lines we have in our minds are lines possessing breadth." Thus, as some of the acutest thinkers of modern times are constrained to admit, the most abstract science—geometry, which may be held to be the parent of all speculation—is not *à priori*, and not one of its axioms can be shown to embody a necessary truth which is out and out independent of experience. If so, the last stronghold of metaphysical philosophy is demonstrably untenable, and Kant and his refiners,* like all their predecessors, have proved unequal to the task of confuting Locke.

---

* Though from its simplicity (says Lewes) the calculation of three added to two is with a grown man an instantaneous act, yet if you ask him suddenly how many are twice 365, he cannot answer till he has reckoned. He may declare "it is a necessary truth that 365 added to 365 make 730, and we should not dispute the necessity of the truth, but presume that he himself would not dispute that he had arrived at it through experience, viz., through

Thus—though perhaps we owe the reader an apology for having detained him so long, if detained him we have, over this first part of our paper—thus, by pinning it down to its first principle of inquiry, by arresting metaphysics, as Locke did, at the threshold of the one question which must first be answered, and which has never yet been, and we incline to think will

---

his knowledge of the relations of numbers, a knowledge which he remembers to have laboriously acquired when a boy at school."

* It is curious, though very far from instructive, to observe how critically some of the lesser fry among the mental speculators have dealt with the system of the great German—each according to his own pet idea or crotchet. Professor Ferrier, of St. Andrew's, has written an ingeniously useless book [*Institutes of Metaphysic*, already noticed], whereof the pet idea or crotchet is, that "the *law of contradiction*," and not Kant's law, is the one test essential for the verification of all mental operations. In his eagerness to crown his own system, this modest philosopher gives the master the lie direct. "The fact is (says he), that all propositions expressing necessary or *à priori* truths—[monstrously assuming that necessary truths are necessarily *à priori*]—are analytic or resolvent." According to Ferrier there are no synthetic judgments *à priori*. Kant is all in the wrong, and the hero of "contradiction," errier, your only Simon Pure among the intuitive philosophers. In a note to former paper (on *the Correlations of Science, Philosophy and Medicine*) we oticed another of this hero's Kant contradictions.

never be answered (metaphysically), we have compressed into the foregoing few pages a century, or for the matter of that two centuries, of ingenious babblement. For we venture to assert with Locke and the many thinkers, his disciples, who have seen nothing since in metaphysics beyond this question, but windy contentions about nothing and the pompous pursuit of shadows, that until *the doctrine of innate ideas* shall have been established, not speculatively, approximately, or problematically, but demonstrably—so that the proof of it shall necessarily rest on a higher plane than does any axiom of geometry or necessary truth of arithmetic—not till then shall the so-called science of metaphysics rivet the serious attention of mankind. It shall continue to hide itself in universities and among priggish pedants—languishingly, as it confesses in these latter days—eventually to die the death of the charlatan in the dim and dusty obscurity of its remote attic.

If there be any measure of truth in such representations, which are those of some of the first thinkers (a minority among "the philosophers" certainly) of this and other ages, then it seems clear that metaphysics are not merely useless as a whole, but antagonistic to positive or physical science—a something to be swept out of the way as obstructive to the onward march of knowledge.

Is it so with psychology also? is it, too, the pursuit of shadows and obstructive in its tendency? From the fact that (academically speaking at least) metaphysics and psychology merge into each other, and are in a great measure inseparable,* we may conclude that if the pursuit of the one be vain, that of the other is likely to be so too. And, accordingly, in times past it has been so; hitherto psychology seems to have had for its object (to requote the redoubtable Ferrier) "some hopeless inquiry about 'faculties,' and all that sort of rubbish." It does not follow, however, that it must always be so. As already hinted, it is a good sign of psychology that, in one or more quarters, she has quarrelled with metaphysics, and expressed a determination to set up for herself. How and where, chiefly, she has done this, we must now briefly indicate.

---

* Hence the absurdity of Professor Ferrier's claim for metaphysics—that it does, or can, ignore psychology. Why, great part, indeed the greatest part, of all the speculative systems, including those of Locke and Kant, has been psychological.

After Kant came Fichte—let not the indulgent reader take unnecessary alarm and turn from us in despair: 'pon honour, we are not going into Fichte metaphysically. But Fichte—the great Johann Gottlieb Fichte—had a son, who still lives, we suppose, though he must necessarily be an old man now, and this son has done something, or said it, that would have made his anxious parent stare. In his old age he has published a little book, which he calls a "confession," and wherein he virtually acknowledges the vanity of some of his own (for, earlier, he wrote several big and elaborate philosophical treatises, including a Critical History of Ethical Philosophy, none of which, so far as we know, have been yet done into English) and his eminent father's speculations, as well as that of the method of the schools; and, in a word, gives up metaphysics as effete, proposing to substitute a psychology which, instead of ignoring, shall distinctly recognise positive science. This little work has been translated by Morell, from whose preface we give the following extracts as explanatory of the scope and spirit of the "*Philosophische confession.*"

"The philosophic tendencies (of Fichte the younger—Immanuel Hermann) are contained in a series of works on speculative theology, ethics and psychology, which have appeared at pretty regular intervals since 1847. I need only say, at present, that in these works he has completely broken with the abstract *à priori* tendencies which for a long time had ruled the mind of his country; and that he has shown the nonentity of all science which is not based upon facts that appeal *directly* to human experience . . . . In the works of Fichte we have embodied well nigh *the whole course of German speculation*, from its first rise and dissemination to its present results. We see a mind nursed up from infancy in the atmosphere of abstract investigations, passing through all the logical processes which the acutest analysts and system-makers could supply, emerging at last into the world of experience, as that alone on which the lever of science can be placed so as to produce any abiding effect. Metaphysics we see (through his experience) must return after all to the form of psychology; and psychology must link itself to the rest of the natural sciences. Borrowing from them all the light they can supply, it may at last avail to carry us a little further into the secret workings of human nature and the human soul. . . . . Fichte is the uncompromising opponent of *mere materialism.* But instead of building his spiritualistic views in the air, or founding them on abstractions, he insists on the most rigid scientific procedure."

Perhaps this is claiming too much for Fichte, in any view of his psychology: from the physiological or scientific point of view, it clearly is; but such is not quite his translator's point of view; Mr. Morell, unfortunately, though much in advance of most, being like most professed philosophers guiltless of regular scientific training. As a thinker he has himself some claim to originality; and he makes the claim in the very preface from which we have just quoted, when he says:—" psychological efforts in this country have almost all proceeded on one of two principles. First, there is the old dualistic principle, which regards the soul and the body as two distinct essences, each having its own peculiar attributes formed and developed by wholly different agencies, and adapted to each other for a time by some intelligent power distinct from and superior to both. This has been the ordinary view of the Scottish school of mental philosophy, and may be regarded also as having been for some time past the most current popular notion on the subject in our own country generally. The very unsatisfactory nature of this theory has long become apparent to investigators, particularly to those who have regarded mental phenomena mainly from a physiological point of view. The close connection between the mind and the body, and their mutual actions and reactions on each other, all point by the most indisputable proofs to a far more intimate and essential unity than the above theory supposes. Accordingly, an opposite tendency has for some time past set in strongly amongst the less metaphysical class of mental analysts, the tendency, viz., to regard all mental phenomena as strictly dependent upon physical conditions, and to set aside the question, as to the separate essence of the mind, as an enquiry wholly futile and transcendental. . . . . . I have already shown in a former work,* that we are by no means shut up to the alternative which these two systems present; that we may hold the separate existence of the mind and the body, and yet regard the former as perfectly pervading the latter, nay *as being the formative principle by which it is constructed and adapted to our nature and use.*"

The italics in the last part of this quotation are our own. They point attention to the fact which, *inter alia,* it is the design of this paper to illustrate, that without the correction to his ideas which the regular study of the physical sciences is calculated to supply, the student of mental science is unfitted, by the bias of his own ideas, to settle, even approximately, the very problems he deems he holds in special trust; as conversely —though it may be to a lesser extent—the man of special science, who is a physiologist or a chemist, an anatomist or a pathologist, and nothing more, is ill-fitted, by the cultureless state of his mind, or the absorbing nature of his too material pursuits, to assist much the great movement whereby physical science, as a whole, shall be raised to the higher platform of a deductive philosophy. The problems to be solved involve *not* merely the phenomena of mind on the one hand, and those of organization on the other: this is but the question as *it is* bandied about between the philosophers and the men of special science—the question begged on both sides. The problems to be solved involve a consistent explanation, a solution, a reconciliation of these phenomena, and nothing less. The problems to be solved are at once abstract and concrete, analytic and synthetic; they are psychical, physiological, ethnological and social: they concern man in all his relations to life, and in all his dependencies; and it is neither the authoritative physiologist nor the famous philosopher who can solve them. The party of progress among the psychologists, as represented by Mr. Morell, for example, the emancipated thinkers, as they consider themselves, who see at length that physical science is a great fact not to be ignored in any future estimate of man's *double* organization.* Mr. Morell tells us that we are to regard the mind as "the formative principle by which the body is constructed." But the physiologist knows that there is a germinal vesicle, and he has traced the process, more or less minutely and satisfactorily, by which the primordial cell of a rabbit or a human being, which at first presents no difference from that of the humblest plant, expands itself, multiplies itself, transforms itself, till *it makes a man.* He has watched the contents of this primordial cell divided into two halves; then, seen these each divide into two by a similar process of dichotomy; and each of these again divide into two; until the primordial cell is filled with minute cells. Then he has noticed a new process commence, by which the granules or minute cells are integrated so as to form the germinal membrane, out of which the various tissues and organs are successively developed by the formation of the more special tissue out of the more general, all in a fixed and invariable order. And he has ascertained, finally, that this evolution does not cease at birth, but continues till the organism attains its complete development—*i. e.*, till the reproductive organs by means of which it is to transmit its life to its successor have attained, at puberty, their functional perfection—and the primordial cell has become a finished man. The physiologist knows this, and knows it differently from his friend the liberal psychologist, who has learnt something about development, just as he has learnt something about sewage or ventilation. The primordial cell, that might, for all the tensest scrutiny can determine, have developed equally into a mushroom, a rabbit, or a Shakspeare, has a very different meaning for the two inquirers; and when the physiologist, perchance, asks the philosopher how he conceives of the mind, which *afterwards gradually* illumes the wondrous organism, during the early stages of this evolution—whether as latent in the primordial cell, or superadded invisibly at the period of the formation of the germinal membrane, or at birth, or when?—his psychological friend probably turns from him, with a kind of contemptuous pity, as a "mere materialist;" whilst, on his part, the man of science fails to stifle a sentiment of contempt which he entertains for the "dreamer." Yet, probably this physiologist is no mere materialist, nor this psychologist a mere dreamer: they misunderstand each other hopelessly, simply because they entertain a totally different appreciation of the same facts.

---

* *Vide* his *Elements of Psychology,* published in 1853.

---

* This *double* organization (mind and body as separate or separable entities) is constantly assumed by the psychologists; though Mr. J. S. Mill, probably the most advanced, *i.e.*, the most scientific, of English "philosophers" remarks: "It must by no means be forgotten that the laws of mind may be derivative laws resulting from the laws of animal life, and their truth, therefore, may ultimately depend on physical conditions."—*System of Logic*, Vol. II., p. 426.

Such, we apprehend, are the present relations of philosophy and positive science, as subsisting between the more advanced thinkers on either hand. Ordinary men of science refuse, generally, to look full in the face or follow to their legitimate conclusions facts that militate against the settled opinions of their time, whether these be metaphysical, theological, or social; each, in the department he has chosen, sticks to it like a cobbler to his last. Your mere philosophers, again, turn their backs on science as something vulgar and debasing, and live and die in their metaphysical prejudices; though, by the way, it does not follow that they believe in them to the last, if it be true—as Mr. Lewes has specially insisted on, in that admirable compendium the *Biographical History of Philosophy*—that metaphysical philosophy tends ultimately and inevitably to universal scepticism, like the pig that has got adrift, cutting her own throat in her desperate efforts to keep swimming.

Mr. Morell represents, as we observed, a party of advanced or liberal psychologists in this country, whose views we have somewhere seen termed "eclectic:" in his work already alluded to (*Elements of Psychology*) he advocates a so-called compromise on that fundamental question of all philosophy about which we have spoken at some length—the origin of our ideas. It is to this effect: that "we are not obliged to adopt either the theory of *innate* ideas, or the purely *experience* hypothesis, but that we may regard the mind as endowed with primordial instincts, which *develop* into faculties by the regular process of growth in connection with the outer world."

This may be termed the key-note of the so-called "eclectic" psychology. It is a lame attempt to solve a difficulty by assuming, under the gloss of new language, the matter in dispute. It betrays also the same confusion, as to the bodily side of the problem, that we commented on further back. What are those "primordial instincts" which, like material primordial cells, are said to "develop?" They are not material, yet they develop; but out of what *contenta*, or how, they so develop, is not, and of course cannot be, shewn. Then, unless they stand for "innate ideas," we may affirm that they stand for nothing at all, being two words without definite meaning.* In short, there is no alternative: we *are* obliged to adopt the one or other in accounting for the source of our ideas—the hypothesis of *innate* ideas, or the theory of *experience*.

To return to Fichte: as might be expected, he holds tenaciously to innate ideas, and even transcends the ordinary conception of them:—"The human soul (as we have expressed it) has not only elements prior to experience in its consciousness, but it is itself an *à priori* being, furnished with definite impulses and instincts, and goes through a series of very effective, though unconscious, processes of thought before it comes to the power of conscious thinking." Here are the "primordial instincts" under psychological development. Here, and on other fundamental questions, Fichte, except that he is of a newer school, is in consistency with the spirit of the philosophy in which he was reared. In one sense it is curious, that he should profess, elsewhere, to see so clearly the necessity of reconciling philosophy to science, and still continue to endorse speculations of the most abstract and transcendental kind. He is the first, or one of the first, among the professed philosophers of Germany who has specially insisted, as part of his system, on the necessity of taking into account and solving what have been termed the *abnormal phenomena* of the human mind; as the more remarkable phases of dreaming, but especially somnambulism, hallucination, presentiments, hypnotism, clairvoyance, ghost-seeing, and the alleged phenomena of what is called "*mediumship.*" In the present state of philosophy (transitional?) he is a bold man, either of science or letters, who proposes to himself the harmonious solution of these vexed abnormalities; as will be noticed at the end of this paper, they present a kind of frontier ground admirably fitted for the meeting, in consultation as it were, of the professed psychologist and the physiologist. Fichte gets sadly into the bogs of spiritualistic speculation here; yet his chapter on "*Primitive Consciousness and Self-consciousness,*" in which chiefly he discusses these slippery phenomena, is not merely readable, connected, and ingenious, but also very suggestive. With Fichte's psychology, as such, we have no further concern. The theological element enters largely into it, involving him in supernaturalism to an extent scarcely compatible with the pretensions of "eclecticism," or the appeal he makes to physical science: but that he does make the appeal, is the important fact for us of his work.* There is an appendix, the second part of which we may quote nearly entire, as both conveying a very good epitome of "nerve-physiology," after Wagner, and showing to what extent the appeal to science is beginning to be tolerated in some psychological regions.

---

* If the word "instincts" here should bear the meaning of *instinct*, as generally contradistinguished by the philosophers (as we believe, however, on insufficient grounds) from *reason*, then, perhaps, we might apply the doctrine not inaptly to certain fishes, insects, birds and brutes; but not to man's mental constitution.

"THE ELEMENTARY ORGANISATION OF THE NERVOUS SYSTEM, AND ITS RELATION TO PSYCHOLOGY.—I have already remarked, that the greatest stress ought to be laid upon the question, as to whether anatomical results are in accordance with the views I have propounded, and able indirectly to confirm them. According to my views, *it must be maintained that the structure of the nervous system presents us with a perfect reflex of psychical relations, and that consequently there must be various mental processes corresponding with the different*

---

* We should have noted it sooner, *Contributions to Mental Philosophy.* By Immanuel Herman Fichte. Translated and edited by J. D. Morell, A.M. London, 1860.

*functions which we find to exist in connection with nervous activity—processes which psychology ought to discover, and which, when discovered, we should see to be in perfect correlation with physiology and anatomy. I must here fully subscribe to the expression of Fortlage, that the external functions of the nervous system are really mind become visible.**

"On this account the conclusion cannot seem strange that in these psychical relations we may find the key to that most dark and enigmatical question,—I mean the anatomical structure of the nerve-matter. At present it would be doubtless premature to attempt any such parallel, for it is only quite recently that psychology has begun, on the one side, to investigate the more inward processes of consciousness, having been contented so long with a mere enumeration of faculties—[Professor Ferrier's "hopeless enquiry about 'faculties,' and all that sort of rubbish"];—while, on the other hand, both physiology and anatomy, by their own confession, are as yet far enough removed from drawing any definite conclusions from their researches into the structure of the nervous system. Whatever I have to communicate respecting the parallel, I must present rather as a preliminary attempt, which may be hereafter made good, than as giving any fixed and ascertained conclusions regarding it. The relation, however, which Wagner has so acutely pointed out between the primitive nerves and the nerve centres, is too striking not to lead us to attempt a psychological interpretation, which bears very closely upon the distinction between the individual elements of sensation and the elaboration of them into perceptions and notions. This distinction is now thoroughly well grounded, and goes far to reveal the mystery of the whole development of our consciousness. Whether it can be shown, however, to have its reflex in the structure of the nerves, is at present only conjectural. I shall endeavour to give a brief sketch of what is already ascertained in the region of nerve-physiology, and what Wagner has himself been able to add to it.

---

* We have italicised the above passage, as perhaps the most important deduction of psychological physiology. We shall presently notice shortly a work written ostensibly from the physiological point of view—Professor Laycock's "*Mind and Brain*," published about the same time as this English version of Fichte's "Confession"—in which we find the same generalisation advanced scientifically, and with the assumption of originality. To us it seems clear, however, that these ideas were first eliminated philosophically, and that they did not originate in this country.

"In the brain and spinal marrow these conducting nerves—[the centripetal and centrifugal, which he has first described]—are connected with the other kind of nerve-substance,—the cellular or grey matter. External impulses come to perception only when they are brought, by means of the conducting nerves, into contact with the cellular matter. This fact would be of extraordinary importance, in relation to the parallel between physiology and psychology, if it could only be raised from an hypothesis to the rank of a physiological axiom. There are strong grounds in its favour, and it would be interesting to show the results that would flow from it.

"The primitive nerves, as we remarked, never anastomose into each other; they shew, in this way, a natural adaptation to propagate each single operation, as elements of sensation and volition, isolated and unmixed. But in the ganglionic cells they appear to come into mutual action and reaction, so that it is here, *first*, that the various simple operations are combined: i.e., either the single elements of sensation are fused into a conscious act of perception, or a single act of will is distributed over the several organs, which must co-operate in order that it may be carried out into a practical execution. Several conclusions may be drawn from this: first, that *the well-defined distinction between sensible and motor nerves must be extended to the ganglionic cells.** We should have to distinguish such cells, therefore, as those which subserve sensational and those which subserve volitional processes. Secondly, that every ganglionic cell, according to the number and importance of the primitive nerves which meet in it, is in a greater or less degree a *centralising* organ, *that very thing, in fact, which psychology has hitherto only looked for in the soul itself.*† Still we must only regard these relative centres of consciousness as the *elements* out of which and within which the soul combines its more extended processes of consciousness. Lastly, it follows that these ganglionic cells, being at the same time relative centres of consciousness, must be connected with each other by means of the intermediate nerve-fibre. We can here hardly overlook the still further consequence, that there is a third series of primitive nerves; that besides the sensible and motor, there is also another species of nerves, which is adapted to combine the higher states of consciousness together.

---

* This is, in effect, a separate enunciation of *the reflex action of the cerebrum*, for which Dr. Laycock fairly claims credit in this country. The italics are ours.

† The italics are ours.

"Let us consider, then, what it is, in these principles of Wagner, which tends to support the hypothesis we have brought forward. The following facts are in the highest degree significant: 'From all the ganglionic cells there are offsets, which unite them with the primitive nerves, or with other cellular formations. Most of the ganglia shew a great many of such offsets. Whether there are any which only have one bond of connection, is doubtful; it seems that there are none wholly isolated. Again, the cells transmit impulses from one kind of nerve-bundle to another, that is, from the nerves of sensation to those of motion, and *vice versa:* in this way reflex actions are originated. Other cells transmit the operation of the nerves to the gland-substance, in order to produce secretions from the blood. The secretion of tears and saliva (as the consequence of external objects) is explicable on the same principle. Large masses of small cells (as in the case of the corpora quadrigemena and the optic thalami) are necessary in order to call forth the sensations of light and colour; so that these may produce such sensations even *without* the co-operation of the eyes and the optic nerves, as is often the case in congestion of the brain. Similar masses are found in connection with the nerves of hearing and smelling.' From these facts it follows incontestibly, that the operation of the ganglionic cells, so far as the lower region of feeling is concerned, is independent and central; while the activity of the primitive nerves and commissures is elementary and subordinate. A similar relation appears to exist in reference to the organs of the higher intelligence: 'Millions of small connected cells (Wagner says), in layers of various thickness, line the outside of the hemispheres. Millions of fine fibres spring out of them, and form the white substance of the brain. These fibres conduct all the impulses of the senses to the cells round the surface, and carry away the impulses of the will from those cells to the periphery.' Wagner, therefore, calls these cells *psychical* cells, and remarks that if we can speak of the seat of a soul *at all* in a physiological sense, these cells must be it, as they are the last point of connection between the anatomical nerve-elements and the consciousness. At least *it can be shewn that, in the creation of perceptions and other purely mental processes, those cells round the surface are in action* * Whether they are so *to the very last point,* we cannot say, for there is still one objection remaining, viz., that in the unknown basis of the brain there may yet lie some *single* organ of great importance to which the cells at the surface are attendants. Wagner, however, cites the following facts to the contrary: 1st. Wherever these cells are largely distributed, mental disturbances in proportion always take place. All pathological experiences confirm this, particularly insanity. 2nd. That it is only when disturbances do take place in these cells, either directly, as in inflammation, brain fever, &c., or indirectly, as in lesion or pressure, that mental disturbances can uniformly be detected. 3rd. That no *more certain* cause of mental affection is known, as, *e.g.*, where any other parts of the brain are injured, without the sympathy of the cellular substance referred to being awakened by it. 4th. Well-known observations on animals, in which the upper part of the brain has been cut away in slices, confirm all this. Wagner has convinced himself, by observation, that the greater or less degree of idiotcy [in the human subject ?] or insensibility in animals, depends on the extent to which the cellular surface has been removed [or congenitally injured ?]. From all which, his own and Huschke's observations, he has deduced the following principle: The increase of the convolutions, and their more vigorous folding, consist simply in the increase of the cells which are embedded in the grey matter. The region of the forehead, and the sides and upper portions of the cerebrum, shew more numerous convolutions in the case of men of high intelligence. Finally, the brain is a highly complex organ; it consists of numerous prominent apparatuses and conducting wires, like the network of telegraphs, whose millions of stations stand in connection with each other, and which all have their central office in the consciousness. It is quite clear that the most recent anatomical investigations can shew *no one single point* in which all the impressions converge, and from which the impulses take their start. To whatever extent the atomistic philosophy [materialistic?] requires this, it fails at present of support on physiological grounds.

---

* The italics are ours.

"We may remark as a corollary, that the doctrine of the perfect simplicity of the soul cannot be affirmed on anatomical grounds. The opposite view, on the other hand, gains strength, viz., that the soul is a real existence, involving a space-relation, like all other realities; and that the fact of an invisible pneumatical body, which has been a stone of stumbling to the empirics of our day, is rendered in the highest degree probable from the plain intimation of palpable physiological facts."

So much for Fichte,* and his very suggestive appeal to physiology in favour of his somewhat inconsistent and contradictory views. We deem them so, as appealing to, rather than admitting the guidance of, physiology. Exception must be taken, for example, to the conclusion set forth, and no less to the ground on which ostensibly it is set forth, in the concluding paragraph. It may not be consequential to deny that the soul may be a real existence; but as to its involving a "space-relation," compatibly with the notion of its assuming "an invisible pneumatical body," this is evidently a mere hypothesis, *not*, as yet, rendered 'probable from palpable physiological facts.' There are various other points on which, like his translator Morell, and the new school of psychologists generally, Fichte, while appealing to, overrides the practical and scientific side of the questions he discusses. The facts of hereditary transmission, and other material elements in the formation of individual character, are unworthy the consideration of this class of philosophers. It is "the plastic power of the soul which operates with an individualising force upon the body; and the more powerful the soul, i.e., the more decidedly it comes forth as *mind*, the more peculiar and characteristic is the organism in physiognomy and expression." (See the Chapter on *the Essential Nature of the Human Soul.*) Despite, however, such incongruities, and irreconcilable in some important respects as even this phase of mental philosophy seems with the teachings or tendencies of positive science in these days, still we cannot but regard it as being, by virtue of the very appeal it does, however obliquely, make to science, far in advance of the speculative Metaphysics which professes to treat it with contempt.

---

* Perhaps the most characteristic part of his psychology is the doctrine of the *preconscious*, as distinguished from the *conscious*, or ordinary life of the soul, involving the view already alluded to, which regards the soul as "the formative principle" of the body. How this doctrine is sought to be established, *quasi* scientifically, we may just sketch, as a good example of the mixed forms of reasoning sanctioned by this school: It being assumed hypothetically that this preconscious life of the soul (to which are referred all the *instinctive actions* and all the *involuntary* workings of the intelligence) is both capable of exhibiting phenomena which altogether transcend its ordinary and conscious powers, and of operating in this way *without organic conditions*, the appeal to science in favour of the doctrine is made in this wise: Sir W. Hamilton many years ago pointed out the fact, that there is a process of *latent thought* always going on more or less energetically in the soul; and certain physiologists have referred such phenomena to what they have termed *unconscious cerebration;* whilst Dr. Laycock has brought them under the general category of *reflex actions*, &c.—hence, it is argued, "we may regard the whole theory of the preconscious life of the soul as having a large basis both of fact and authority to rest upon." But what becomes of preconscious life of the soul if it be referrible to reflex nervous action?

There are two modern English writers on psychology who have made the appeal to science in a more systematic and direct manner, and to whose works, without being able, or thinking it necessary to notice them here, we would refer the reader—Mr. Alexander Bain and Mr. Herbert Spencer. Both these writers have been styled *materialistic* by the purely speculative philosophers, inasmuch as they view mental phenomena not wholly from the abstract side, but regard them in their necessary and essential dependence on physical conditions. The same charge can scarcely in fairness be brought against Fichte, whose unique utterance we have chosen as perhaps more suggestive in several respects than any English one on the same side.

It seems time now to approach the subject from the other, the physiological or scientific side; to ask what the men of science generally, the physiologists especially, have done towards reconciling the phenomena called mental or psychological with those considered nervous, functional, or organic. Various scattered and fragmentary contributions have been made of late years to this side of the desiderated connection, by physicians or surgeons, as Sir H. Holland, Sir B. Brodie, &c.; but of attempts to develop a system, of systematic endeavours to enclose the whole ground, we know of none, till the appearance of Dr. Laycock's elaborate work in 1860.*

Opinions may differ—though we have met with no great differences as yet—as to the value of this work in certain directions; but few readers of it, we should think, will dispute that it is written on a very bad plan, if plan that can be called which embraces under a great variety of headings a mass of disjointed observations, or what to the unguided reader must seem such. And this blemish is not a little aggravated by the inordinate repetition of technical terms, and the use of new words, in which the author has revelled seemingly, rather than moderately indulged. The last is a kind of fault which in another might be set down to a weakness, but in our author's case is due, probably, to over-refinement: it is not the less a repulsive feature, however, in a book which professes to address not exclusively either the philosopher or the physician, but the student also. Again, there is no proper distinction, as we should expect from its title and professed purpose, between that part of the work which treats more specially of mental phenomena in their relations to scientific and physiological data, and that which, conversely, adapts or correlates the facts or inferences of science to the doctrines of philosophy. We miss something distinctive, which ought to stamp the whole as the utterance of the philosopher who is besides, and specially, the physiologist and the *medical* psychologist; and if we except the last third of the second volume perhaps, and the several allusions to Dr. Laycock's scattered papers, there is nothing distinctive in the work to stamp it as one which might not have emanated from a clever and laborious student of the mixed sciences—from a Bain, a Morell, or a G. H. Lewes, instead of the Professor of the Practice of Medicine in the University of Edinburgh. Its *doctrine*, no doubt, is ingeniously comprehensive; but it is proportionately obscure. The style is at once stilted and involved, and the matter tautological in the extreme. Considerable part—we had almost said the greater part—of these two closely printed volumes consists of the same ideas, for the most part psychological and transcendental, presented and represented in different connections and under varying conditions, generally without any really new result; yet so metamorphosed, or tacked on to other topics, that the general reader fails even to recognise them as the old friends with the new faces that the author doubtless intends them to appear. As we learn from an index at the beginning, some 275 authorities, or thereby, are referred to, some of them many times over, and both volumes teem with quotations, which are sometimes introduced without very decided point, not assisting the reader, therefore, to the inferences presumedly deducible; and on many points, chiefly of metaphysico-psychological dispute, we have not been able to gather, from the large use the author makes of such varied authority, to what views he himself leans, or whether he means purposely to leave his readers to balance these authorities, and draw what conclusions seem to them the best supported. For the most part, Dr. Laycock speaks indistinctly, except in the *appendix* to the whole, where, very properly and fairly, as between himself and Dr. Carpenter, he vindicates his claims as the "Discoverer" (perhaps it were more gracious to say, the first distinct enunciator) of "the law of unconscious cerebration,"—a most important physiological principle, to the psychological bearings of which we have at least alluded in a foregoing part of this paper. Dr. Laycock's work is in many respects a remarkable one; but it is of extremely detached interest, and has, to us we confess, all the appearance of having been compiled hurriedly from a mass of miscellaneous notes—of great value in themselves, as notes—which the accomplished author has been collecting probably for many years, and of which we cannot but think he might have made a better use. In its present shape the book is unreadable as a whole. We have seen several notices of it, but none that attempts to grapple with it analytically; nor shall we now face the Herculean task of putting into common coherence this remarkable *omnium gatherum* of metaphysics and all the *ologies*.

---

* *Mind and Brain: or the Correlations of Consciousness and Organisation: with their applications to Philosophy, Zoology, Physiology, Mental Pathology, and the Practice of Medicine.* By Thomas Laycock, M.D., F.R.S.E., &c., &c., Professor of the Practice of Medicine, and Lecturer on Medical Psychology in the University of Edinburgh. Ed. and Lond., 1860.

We fancy it will be the general opinion of his admirers, that Dr. Laycock has been happier in his shorter and more synthetic published utterances. We have perused with different feelings than those we have been expressing, several of the separate papers (in the *British and Foreign Medico-Chirurgical Review* chiefly) to which he makes general reference; and there is now before us a comprehensive and comprehensible essay, in the shape of an "Introductory Address,"* which appeared about a year after the publication of the work in question, in which he gives some account of his book and a summary of his views, so far, on psychological physiology, or "medical psychology." From this deliverance we may appropriately quote certain connected passages. And first, let us hear Dr. Laycock on his own book:

"The text book (as he now calls *Mind and Brain*) is necessarily encyclopædic in its character, to meet the present aspects of mental science. [This is scarcely consistent, however, with the pretensions advanced for it elsewhere, or with the character it bears on the face of it.] It first develops an appropriate method; for without this neither progress nor a useful arrangement of what is known is possible. It then summarizes the results of experience, whether attained by common sense or metaphysical inquiries, with a view to the elimination of principles. Proceeding from these as a starting point, it teaches the fundamental correlations of the physical, vital, and mental forces and laws, under the two heads of teleology and biology. These subjects occupy the first volume."

---

* *The Scientific Place and Principles of Medical Psychology: an Introductory Address.* By T. Laycock, M.D., &c., &c. Reprinted from the *Edinburgh Medical Journal*, June, 1861.

Which volume, we may just remark, is the more unreadable of the two, being wanting, so far as we can find, in that "useful arrangement" on which the author congratulates himself.

"In the second volume (he continues), the principles and laws thus evolved are applied to the development of a scientific psychology in the first place, and then of a mental physiology and organölogy. In this part of the work [which is, we consider, the best part of it decidedly] all the more recent discoveries in natural history and zoology, in comparative anatomy, in the development, structure, and physiology of the nervous system, and in mental physiology and pathology, find their appropriate place. By this plan the study of the connection of the body and mind is placed on the broadest scientific basis, and the work is made to constitute a systematic summary of our present knowledge of life and organisation and thought in their reciprocal relations."

As we hinted, the encyclopædic character given to it is perhaps a little inconsistent with such a "systematic summary" as is here claimed for the work; but such has been the author's grand aim, and this programme may perhaps assist the casual reader of *Mind and Brain.* As to his general views, take the following connected passages from the body of the same paper.

"Physiological psychology is only of recent origin, and has arisen concurrently with the advances made in neurology. It has been cultivated in two modes, viz., as a department of the science of life [physiology], and as a system of philosophy. Of late years, eminent physicians and surgeons (as Sir H. Holland, &c.) have cultivated psychology from a physiological starting point. These, however, have not developed a system, but have rather leaned to speculative psychology [metaphysics] as the basis of their researches. The school of phrenological psychology is also of this class, but it claims to be systematic. Under Gall and Spurzheim it sprung like other sciences of life, out of medicine; and if it had remained in connection with medicine it might have attained as high a position as any of them. But unfortunately for its progress, it was too quickly severed from the medical sciences and constituted into a distinct and popular art, as cranioscopy. The practice of it then fell into the hands of persons either, for the most part, devoid of physiological training, or else who had a stronger bias towards philosophy than biology. In this way it became wholly unscientific, or took an ethical and philosophical development, and its progress consequently, as one of the biological sciences, was checked. It is for this reason that phrenology has hardly made any progress as a science since the days of its founders; and not to advance is to recede. . . .

"Looking at the position of psychology proper, it is clear that medical psychology must take an independent place between biology on the one hand, and metaphysics on the other. It cannot ignore the vast labours of the metaphysicians; it must of necessity take in all that biology has accomplished. Hence its method must be eclectic, to the end that every solid result of every kind of enquiry may be made available to its scientific and practical development. It must virtually be a science of mind developed as a science of life. Or, briefly, medical psychology must be cultivated independently as a positive and practical science, and not as a mere offset from speculative, metaphysical, or philosophical systems of psychology. . . . .

"Medical psychology affirms the fundamental principle of physiology, that no change whatever arises in the consciousness without a corresponding change, or series of changes, of some kind in the organism. . . . In this particular medical psychology differs wholly from speculative psychology (which expressly excludes this inquiry),* and follows therein its own independent course; for it teaches that, devoid of this knowledge, we can never attain to a science of consciousness at all—that is, to a knowledge of the order of vital events, in virtue of which those changes in the consciousness known as pleasure, pain, desire, aversion, perception, thought, impulse, passion, will, and the like, arise, are intensified, are disordered, or cease. Neither, devoid of this fundamental basis, can we have any sufficient theory of neuralgia or melancholia, of delirium, or of insanity, or of the influence of climate, diet, regimen, and drugs on the mental powers; nor can we establish otherwise a scientific basis for mental hygiene and mental training, or education. In short, without a knowledge of the mutual relations of vital and mental changes, no practical mental science is possible, and therefore no true medical psychology.

---

* From a foregoing part of our paper, it will be seen that this does not fairly apply to the phase even presumedly speculative psychology has assumed in the hands of certain of its later expounders.

"While we affirm as a fundamental principle, that changes in the organisation coincide with mental changes, we are not materialistic; on the contrary, we postulate Force as the first of these changes. It is not matter, but the forces of matter as manifested in living things, upon which these changes immediately depend. This general principle only affirms a recognised general law of creation. Ceaseless change within the limits of its laws is the order of creation. When the changes cease which constitute the phenomena of life, it is death. But still this is only a change in the mode of being; and if medical psychology do not follow the inquiry further, it is because it recognises the impossibility of any scientific inquiry being instituted in that direction. The order of phenomena beyond the grave is matter of faith, and not of science or observation.

"The unity of the phenomena of life and consciousness in man implies a unity of forces and laws. Hence the laws of the mental and vital forces should correlate each other. Now the highest development of consciousness is the reason, or a knowing direction of all the powers to the attainment of desired or desireable ends; consequently, the laws of reason itself must be correlative with the laws of life and organisation. But the converse of this proposition is also true, so that the principles of biology must correlate the principles of mental science."

Now, all this is very intelligible, and in the main commands the assent of, probably, most physiologists who have directed their attention to the subject. In the last paragraph we have the special point of departure of this psychologico-biological inquiry clearly stated; it is the text, as it were, of Dr. Laycock's systematic work. That the laws of reason itself must be correlative with the laws of life, there is no dispute, let us assume, on the physiological side; and it is also admitted *in the general*, that the principles of biology *ought to* correlate the principles of mental science. But now comes the problem, how, in the present conflicting state of science, philosophy, and medicine, *this can be shown.* The approaches made on the philosophical side have been inadequate to show it. Is it possible, then, systematically to show it from the biological side?—*i. e.*, taking the facts and inferences of all that pertains to the science of life along with us in our use of the psychological phenomena. This is the special question which Dr. Laycock has attempted to answer in the affirmative; and we have to ask—Has the system developed in his work proved equal to that conclusion? And the answer is very decidedly in the negative. The system he has developed fails, very much because it *is* a system. The problems to be solved are not ripe for such a system, so to speak. The question at present is rather, *how far* the principles of physiology *can be ascertained* to correlate the principles of mental science; and so far as the "principles" of both, or of either, are unsettled or unfinished, just so far is a complete and systematic exposition of the correlations of consciousness and organization, such as Dr. Laycock has eliminated, premature. And if this be true, it may partly account for what we have already commented on, and which is perhaps not wholly due to the author's involved and tautological style—the *unreadableness* as a whole of his ambitious book. "I think I shall be able to prove to you (he says, in his paper we have been quoting *quoad* his greater work) how simple are the general laws common to the two classes of phenomena (those of the vital, and those of the mental forces and manifestations), and how capable they are of application to an infinite variety of changes in both health and disease, and whether of the body or the mind. But to attain this clear view we must take a wide sweep of the horizon of life."

Now, it is just this must give us pause—the "wide sweep," the application to an infinite variety of changes. So long as we confine our survey to a few general laws, it can be shown, proved, or rendered morally certain, that they are common to the two classes of phenomena; and for our individual part we don't much doubt what Dr. Laycock believes, viz., that *all* the phenomena of consciousness and organization are correlated. What we deny is, that it is at present possible to trace these correlations throughout, or beyond the generals; and what we very much doubt is, whether such a demonstration as Dr. Laycock has attempted in *Mind and Brain* can much assist us beyond these generals. It is when he gets within them that he strands often on the very shoals he keeps buoying, so to speak: without seeming to be aware of it—of course, he does not think so—Dr. Laycock gets positively *metaphysical* in those particular "correlations" of his. He rides them to death in pursuit of this system—a system that shall unravel the chain that runs from the extreme end of consciousness to the limits of organization. These arbitrary, undemonstrated, and, as we hold, still undemonstrable, particular "correlations," he dignifies with the appellation of "laws." He confounds *analogy* with *correlation* too.

In view of some such paper as the present, in which Dr. Laycock's work demanded notice as being the only systematic one from the biological side of the inquiry, we had marked a number of passages in consecutive illustration; but, on reflection, abandon the idea of quoting them now, as it seems scarcely either fair or satisfactory, without undertaking a systematic review, to depart from the "general notice" tone of these remarks. Loath, however, to leave it without tendering a sample of so remarkable a treatise, we cite a passage which is to be found at p. 61-2 of the second volume, near the beginning of the chapter headed "*Fundamental Correlations of the Laws of Growth and Development of the Laws of Thought*":—

"413. The development of the organic basis of the vital powers, and the evolution of the substrata of the knowing faculties, both follow the same law. First we see the simplest evolution of the combined action to unity of the various fundamental processes whereby life is maintained in an organism of the simplest form, as a zooid or polype. Then, as we ascend the scale, and differentiation of tissue takes place, there is a correlative manifestation of the fundamental or teleiotic * ideas, and instincts of plants or animals appear, with their appropriate instruments and *vital substratum*. As we ascend still higher in animal life, the instincts gradually lose their unknowing character, and the mental faculties emerge, with their appropriate organic basis in the encephalon, and their appropriate vital mechanism or instruments. Finally, with the highest evolution of the biotic [biological] ideas we find man in his highest development, evincing in arts and science the results of the operation of mental powers, which in the lowest animals are purely instinctive, in the lowest organisms simply vital processes. The derivative teleiotic ideas have become completed as noetic [intellectual] ideas or cognitions. The intellect is supreme.

[From this mark what follows.]

"414. Hence it follows, that, while every fundamental intuition, as the correlative of a teleiotic idea, is the neotic basis of a corresponding mental faculty so-called, or group of faculties, it is also the evolutional cause of a corresponding encephalic tissue, or group of tissues—*i. e.*, of their vital substratum—together with the corresponding mechanism of external relations constructed to be in affinity with external phenomena, viz., the organs of the senses. And as these various machinery are developed and worked in accordance with the law of evolution of casual ideas (155 sqq.), and all their vital processes are dependent thereon, however contingent and variable they may be, the fundamental intuitions become evolved into experience, the formularised results of which constitute a corresponding science and art, or group of them. This doctrine, therefore, of correlative biotic [physiological] and neotic [intellectual] evolution, is the basis, on the one hand, of a science of MENTAL ORGANOGRAPHY, and on the other hand, of a science of INDUCTION. Without the mental causes operating as biotic ideas, there can be no development of a proper *substratum;* without the correlative *substratum,* there can be no manifestation of mental power, and no cognitions, whether primary or derivative."

---

* A new word, as he elsewhere tells us, " from τελειος (derivative of τελος) *summus*, *perfectus*."

This passage, the latter paragraph of it especially, which presumedly contains the gist of what the author *would be at,* is a very characteristic one. Numbers of passages very much like it occur throughout the work—like it in their general style, and like it in the style of their ratiocination. It will be seen that a certain *vital substratum,* which the author makes much of throughout, acts here the part of a fundamental principle. Great confusion of idea attends the use frequently made of it; and this is, indeed, inevitable, seeing that this same "vital substratum" has usually been taken by the metaphysicians as an immaterial substance, or the mind itself. Dr. Laycock may, indeed, say that his substratum is not the same as that of the metaphysicians. In fact he does say so, in the first chapter of this second volume; but his exposition of the matter amounts to the institution of a distinction without establishing a difference.* To him the *substratum* on which he founds may convey a substantial idea, but the case must obviously be various or opposite with his readers, just as it strikes them; and in any view of it, this is a very flimsy fundamental principle on which to rest any part whatever of a designedly substantial system, such as our author professes to have evolved.

---

* He says, p. 3, "In all metaphysicial discussions, therefore, the idea of a *substratum* of conscious states is ever present; and do what we will, we must call it substance of some kind—immaterial, spiritual, material. [A manifest contradiction in terms.] Nevertheless, although we term it substance and material, yet if inorganic be but an assemblage of forces, *a fortiori,* we must predicate the same of the matter of the brain, so highly organised as it is, and so conclusively the seat of mind. But even as an integration of forces we still must speak of it as a substance, in so far as its forces are in relation to our states of consciousness; for substance or matter is fundamentally nothing more than that which is the seat of motion to ends, of which mind is the source and cause. Hence, as a scientific question, the inquiry whether mind is material or immaterial, is valueless. With this understanding of the term, let us now examine the vital substratum, &c. This examina- ion will enable us to adopt a method," &c.—Then follows, under the head till of "*the substratum of conscient mind,*" a dissertation shedding no further ght on this distinction without a difference.

Again, it will be seen that here we are referred to a previous exposition (at paragraph 155, et seq., in the first volume) of a *law of evolution of casual ideas,* on which part of the argument, or "doctrine," as the author says, turns. But when we recur to what is said in that part of the work, under the not very concise head of "*Modes of Derivative Evolution of Ideas considered as Causes,*" we find it too indefinite and hypothetical to deserve in any degree to rank as a demonstration of a law of casual ideas. The word *law,* which should be always appropriately and precisely applied—which scientifically should be held in a certain sort of sacredness—is here, as frequently elsewhere, abused by Dr. Laycock; great part of whose involved language, like that of the above paragraph, when evolved, proves to be essentially speculative or metaphysical.

But though, as a systematic exposition, this work is too evidently a failure, we cannot dismiss it without expressing the sense we have of its author's varied information and general accomplishments. Elsewhere, perhaps, Dr. Laycock has been happier; but as an encyclopædic book, this is well worthy a place on the shelves of every physician's library. The general medical reader into whose hands it may fall we would advise to peruse it from the end towards the beginning, taking Part VI. ("Principles of Mental Organography"), which closes the second volume, first, and so on backwards till the first volume is reached, when, probably, he may feel, with us, that he has had enough of MIND AND BRAIN.

We have now reviewed the subject in its general relations, and the result seems to show, contrary perhaps to common expectation and belief, that, as yet, the advanced philosophers have done more towards reconciling the long conflicting phenomena of mind and organization than the anatomists and physiologists; that psychological physiology is indebted for its present hopeful position more to a Fichte, a Mill, or a Spencer, than to a Holland, a Laycock, or a Carpenter.* That this will be reversed in the future, however, seems certain. The gulf to be bridged has already lost much of its breadth on the philosophical side, and if the work is more difficult and therefore proceeds slower from the scientific shore, it will prove more solid. Mental philosophy is old, vital science is young. The doctrines founded on the assumed independent essence and abstract relations of the human mind, have grown into creeds which, in the eyes of their disciples, have something awfully sacred about them; whilst the teachings and tendencies of cerebral and comparative physiology want as yet, that unity and universality of aim—or cannot give adequate expression to a creed—which would go far to recommend them in quarters where they are still regarded as crude, vulgar, and materialistic. But science, through its destined practical representative, biology—the science of life is the advancing, whilst mental science, or metaphysical philosophy, its representative, is the retiring power in modern education and civilization.

This fact is not necessarily inconsistent with the relations assigned above to the two sides of psychological physiology. All feudalisms must lay down their barbaric pomps, and submit to be merged in the law and order of practical governments. Philosophy is now unwillingly abrogating the kind of feudal reign she has maintained over letters during the many centuries that have intervened betwixt Thales, the father of Greek speculation, and Kant, the last of the great philosophical system-mongers. It may be sad for the romancers and dreamers, but it is true; and here and there a dreamer—as Fichte, the younger, &c.—throws off the old illusions, and rising up listens to the questioning of the iron reasoner Science, till recognising in him no longer an enemy, but a younger and healthier brother, he takes him by the hand. Soon this young Science will be a man, and then it will be his turn to support the tottering frame of aged Philosophy. But as yet the age is more or less transitional.

---

* The latter is to be regarded, however, as one of those famous *compilers* who do little directly for the advancement of science; about whom there is nothing original; who are always "reconciling" the facts of science with the dominant theological or social orthodoxy of the day; and who are given, undesignedly perhaps, to the sin of literary piracy. Dr. Laycock has fairly established such a charge against Dr. Carpenter.—See the *Appendix* to *Mind and Brain.*

Auguste Comte has laboured to show this systematically. In this country, his views have not met with the attention or acceptance they generally deserve perhaps; but it is now beginning to be recognised that he was at least in advance of his time, and that, in Comte, France has stepped before both Germany and England. His elaborate work, the *Cours de Philosophie Positive,* is well known by more than one English translation, that of the indefatigable G. H. Lewes being the most concise; and there are not a few among the advanced thinkers of the three countries (England, France, and Germany) who regard this work as the greatest of our century. Comte not only claims to have discovered the great law of mental evolution; he has applied it historically, and, as his disciples believe, conclusively. The scope of his positive philosophy is too wide of our subject, but as bearing upon part of it, and what has been said in the last paragraph, we may state, in the words of Lewes, this law of mental evolution, which is also, according to Comte's exposition of it, the law of historical progression:—

"Every branch of knowledge passes successively through three stages:—1st, The *supernatural* or fictitious; 2nd, The *metaphysical,* or abstract; 3rd, The *positive,* or scientific. The first is the necessary point of departure taken by human intelligence; the second is merely a stage of transition from the supernatural to the positive; and the third is the fixed and definite condition in which knowledge is alone capable of progressive development.

"In the *supernatural* stage, the mind seeks after *causes;* aspires to know the *essences* of things, and their modes of operation. It regards all effects as the productions of supernatural agents, whose intervention is the *cause* of all apparent anomalies and irregularities. Nature is animated by supernatural beings. Every unusual phenomenon is the sign of the pleasure or displeasure of some being adored and propitiated as a god. The lowest condition of this stage is that of the savages, viz., Fetichism. The highest condition is where one being is substituted for many as the personal cause of the phenomena.—In the *metaphysical* stage, which is only a modification of the former, but which is important as a transitional stage, the supernatural agents give way to abstract forces (personified abstractions), supposed to inhere in the various substances, and capable themselves of engendering phenomena. The highest condition of this stage is when all these forces are brought under one general force named Nature.—In the *positive* stage, the mind, convinced of the futility of all inquiry into causes and essences, applies itself to the observation and classification of *laws* which regulate effects, *i.e.*, the invariable relations of succession and similitude which all things bear to each other. The highest condition of this stage would be, to be able to present all phenomena as the various particulars of one general view."

Do we not feel as if here, Comte's other views apart, we had touched the great problem of our century? Is it not indeed to this that the various labours of science are insensibly tending?—*to be able to present all phenomena as the various particulars of one view.*

Meanwhile, the more special problem of psychological physiology tends towards the solution it demands. It may well be questioned whether, in the phase through which science generally is now passing, it is longer possible to study the phenomena of mind and those of organization apart; and, accordingly, the conviction that they must be taken together as particulars of one general view, begins to penetrate from both sides: the psychologist and the physiologist are approaching each other apace.

The difficulties, on the biological side especially, are still confessedly great, and it remains a question, by what mode of presenting the facts and phenomena at his disposal the philoophical physiologist may best smooth the way. We humbly onceive that the most natural and simple plan is likely to rove the best. He should approach the subject from the cientific side, rather than—like Dr. Laycock and others—from the old metaphysico-psychological side. By way of introduction, what is wanted is, not long dissertations "towards the development of an appropriate philosophical method, with a view to the elimination of principles," but only, meanwhile, a concise and comprehensive exposition of the extant correlations of science, philosophy, and biological medicine, weeded alike of the *verbatim* deliverances of the philosophical system-mongers, and the scientific crotchets of the medical psychologists.* Then should follow a clear statement of the most general and important principles upon which this science of psychological physiology may claim to found; and the illustration of these, with the amplification of the results thence deducible, would complete the simple plan of the concise book which is yet to be written towards reconciling generally the psychological and physiological phenomena from the scientific side.

As to what these principles are which should in this way receive due illustration, this is not the place to inquire further; but there is one of such importance in itself, and capable through its illustrations of such practical conclusions, that it may be noticed. It has reference to the doctrine, Dr. Laycock deserves so much credit for having first eliminated distinctly, of *the reflex function of the cerebrum.* While every other part of the nervous system has been credited with the phenomena of reflex action, the brain proper alone—the cerebrum specially, as the organ known to be intimately concerned in the formation of ideas—the *cerebrum* continued to be viewed, till just the other day we may say, as something apart, which it was difficult or impossible to understand, whose special function it was perhaps presumptuous to elucidate. Most probably, the efforts of Gall and Spurzheim to expound its functions specially and systematically, tended to discourage further exploration in this ticklish frontier ground which *touches* literally both the mental and the corporeal *ego*. Otherwise it seems strange, now that it is acknowledged, physiologists were so long of coming to the simple and natural conclusion that this cerebrum, this organ of mind, is no exception to the rest of the nervous system, of which it is the consummation, in the main characteristic of a developed nervous system—reflex action. What must flow from this natural admission (taken in connection with the duality of the cerebrum, and the *semi-independence* of each of its hemispheres), involves conclusions more important perhaps than most people are aware, or at first view may appear. One of these is, that the encephalic ganglia may be placed temporarily, partially, or wholly, in the condition of the "true spinal" or reflex system, to the suspension of the action of volition and consciousness; as conversely, ideas may produce motions independently of volition, through the cerebrum exciting the spinal cord independently of the other centres. Now if this be true, it goes at once to unravel nearly all the mystery of those so-called "abnormal phenomena" of the mind which have given occasion for so much ingenious psychological speculation—trance, coma, somnambulism, dreaming, ghost-seeing, &c. Its applications in other directions and relations are probably not less significant. Their elucidation would effectually dispose, *inter alia*, of the metaphysico-psychological view which represents the soul as "the formative principle" of the body, and explain, on scientific instead of speculative principles, the doctrine of the *preconscious* as distinguished from the *conscious* or ordinary "life of the soul," which is a conspicuous part of some modern psychological systems. To some extent this has been pointed out already, but only casually and incidentally. When more comprehensively applied, the phenomena of the reflex function of the cerebrum—involving those of what has been termed "unconscious cerebration"—will tend to approximate mind and brain, to a degree perhaps not yet generally suspected.

---

* Among the latter, *e.g.*, the extreme views on insanity, of which Dr. Forbes Winslow is presently the representative, and of which Dr. Laycock also seems enamoured.

Finally, as the correlative view of such organic phenomena, there is the luminous principle which comes to us rather from the psychological side, already alluded to as perhaps the most important deduction of psychological physiology, and which finds its consummation in the dictum adopted by Fichte, *that the external functions of the nervous system are really mind become visible.* A conclusion to be further arrived at by a correlation of the mental processes with the different functions, showing their correspondence, and demonstrating that the structure and plan of the nervous system offer a perfect reflex of mental relations. The great significance of such a demonstration has been fully recognised by Dr. Laycock, whose exposition of *the Correlations of Consciousness and Organisation* (or *Mind and Brain*) is an undoubtedly ingenious attempt chiefly in this direction; although, being a chaotic work before its time, it wholly fails.

Considering the results already obtained, viz., 1st, The partial explosion of metaphysics, for which some of the philosophers even are losing reverence, as incompetent to deal with any of the questions which are now appealing to science; 2ndly, The advances the new psychologists are making towards physiological interpretations of mental phenomena; and 3rdly, The gleams of new light which are appearing on the biological horizon—it seems more than probable that the day is not far distant when the extant doctrine of *thought* as an entity superadded to the organ of thought will be abandoned on all sides, and this sublimer faith reign in its stead: That matter organised to the utmost, organisation developed to the human highest, becomes *self-conscious.* A sublimer faith than the old supernatural or metaphysical one; because the latter was, and ever must remain, essentially speculative, and therefore chaotic. Once realised and applied psychologically, the biological idea of *the self-consciousness of matter* loses its supposed grossness, and becomes indeed sublime. The old but ever renewed war between materialism and immaterialism must cease, when it is generally seen that it is only a childish dispute about words, and that the attributes of Sensative Matter are nothing less, though they may signify much more, than the pneumatical entities with which the metaphysical philosophers have endowed what *they* call Mind.

PERFECT CURE OF AN EXTENSIVE OVARIAN CYST,

WITH SOME REMARKS ON THE EXCEPTIONAL EXHIBITION OF LARGER DOSES OF MEDICINE, AND ON THE EFFECTS OF MINERAL WATER.

By Dr. Hirsch, Prague.*

Madame Miethsam, milliner, 50 years old, married, but without children, sent for me in August, 1857, to pay her a visit. I found a leuco-phlegmatic individual in bed, more sitting than lying, as the horizontal posture brought on violent tightness of the chest, shortness of breath, and even vertigo. After I had carefully examined the chest and contained organs, by percussion and auscultation, and found them perfectly normal, I proceeded to the examination of the abdomen, a mere glance at which at once surprised me most painfully, by its very evident distention. The surface was pale, somewhat shining, tightly distended. In the region of the umbilicus stood a cylindrical swelling, thicker than one's thumb, an inch high, which however, by slight compression, admitted of diminution; whilst its gaseous contents were forced back into the abdominal cavity. On relaxing the pressure, the tumor returned to its former size. The abdomen, tightly stretched, excessively distended, and quite smooth to the touch, gave unmistakeable evidence of fluctuation, yet it could be plainly discovered, by percussion, that the collection was enclosed in a cyst, since the sound was much clearer on each side, in the depth of the lumbar region. And what further led, especially to a perfect certainty in the diagnosis, was the inquiry into the previous history, from which it appeared that the patient had, nine years before, been attacked by severe oophoritis of the left side, during which a rigorous energetic allopathic course, with repeated local and general bleeding, as well as continued applications of cataplasms sufficed indeed to relieve the pain, but left behind a persistent tumor, gradually extending more and more towards the centre, and at last even towards the right side.

---

* From *Meyer's Allgemeine Homöopathische Zeitung*, May, 17, 1862.

Various remedies having been tried by various physicians during the following year, at least to check the progress of the malady, but alas! without success; the patient had recourse to a clinical professor of this place, who, according to his therapeutic principles, exerted himself to an unlimited extent, but with infinitely small success; nay, on the contrary, by a steady continuance (with some variations) of solvent, drastic, and diuretic medicines, hindered the digestive functions, and thereby the nutritive process, and reduced the general powers of the patient to such a degree, that the following complication of symptoms were manifested besides the original local affection:

Along with a total loss of appetite, the tongue was coated with yellow, and at the same time had a tendency to dryness. Even after taking water, or clear meat broth, frequent eructation ensued. No stool took place any longer without previous purgatives; pulse small, somewhat accelerated; the muscles, which a year before had been tolerably strong and firm, were now flabby and shrunk. The patient felt so feeble that she could with difficulty keep on her legs for a few minutes. Besides this, for some days an excessively tormenting (mostly dry) cough had set in, which, especially at night, was accompanied by regular fits of suffocation. At the same time, the urine was scanty and brownish, and when analysed exhibited no considerable amount of albumen.

The symptoms now sketched, as well as a regard to the circumstance that the patient had become so evidently enfeebled by the continued exhibition of solvent and purgative medicines, determined at once the prescription of *china*, which I ordered to be taken in the 6th dilution three times a day, a small portion of a drop in a powder of *saccharum lactis*. By the continued use of this medicine for eight days a change decidedly advantageous commenced in the digestive system, which manifested itself by a cleaner tongue, by an actively awakened desire for food, by a more normal digestion and gradually even by spontaneous action of the bowels. The pulse, in regard to frequency, had quite returned to its normal state. The patient felt herself stronger, was able to pass several hours out of bed, sitting in an easy chair; slept somewhat longer at night; her temper was more serene. Still the cough kept steadily up to the same point, mostly dry, straining, as if a tough, thick phlegm were settled in the trachea, which was only now and then and very sparingly coughed up, and had an extraordinary salt taste. These fits of coughing were generally accompanied by severe pressure on the chest, and uncommon shortness of breath, and even after the fits of coughing were quite over, a still longer time elapsed before this kind of asthmatic suffering subsides. In accordance with these symptoms I resolved on the exhibition of *cannabis sativa,* and so much the more, as this medicine seemed to me to be especially indicated because of its relation to abdominal cysts. The patient took, three times a day, 10 to 15 globules moistened with the 3rd dilution, and in a few days the beneficial influence of this medicine was unmistakeable. The fits of coughing occurred seldomer, with less violence, and the difficulty of breathing was considerably diminished. By continued use, without interruption, of *cannabis,* the cough and difficulty of breathing had entirely given way within the next eight days; and also in regard of the urinary secretion, an alteration was so far observable that it appeared clearer and purer, still its quality remained much the same as before. I continued the use of this medicine, but prescribed it in the 1st dilution, and made the patient take one drop in a teaspoonful of water every four hours. Although the measurement of the abdominal circumference taken after a period of fourteen days showed no perceptible diminution, yet on the other hand, it appeared that now the horizontal posture could be better tolerated in bed, the patient could turn from side to side, and step out of bed without help. The quantity of urine had increased about 6 oz. in twenty-four hours, on the average; yet the stools took place seldom and scantily, on which account I prescribed a few doses of Sulphur 12, at intervals of two days, whereupon a greater activity in this abdominal function was manifested, and again I continued the use of *cannabis* as before, when, after an interval of fourteen days, the measurement of the abdomen for the first time gave a favourable result, inasmuch as it had diminished somewhat more than two inches. The nearly horizontal posture in bed was now established without inconvenience; the quantity of urine was increased, on the average, about 6 or 8 oz. per day. Full of the best hopes that I should by the persevering use of *cannabis* attain increasingly favourable results in the local affection, I found myself somewhat disappointed after the next measurement, taken after a further interval of fourteen days, as I observed not the slightest progress in the expected decrease of the abdominal circumference, although the quantity of urine exhibited no diminution. Still my confidence in this remedy never wavered. I had recourse to the mother tincture; but even this failed in its duty, which served me as a sure sign that the system was no longer susceptible to this medicine, which had now been exhibited for several weeks; a phenomenon which many practitioners will have already observed as well as myself. Now my choice fell on Iodine, and as manifold experience had taught me that this medicine, especially in chronic cases suited for its action, developes its efficacy far more certainly in the form of mineral waters impregnated with *iodine,* so I resolved on prescribing Iodine water of Hall, upon which I shall come to speak more particularly elsewhere in the course of this paper. I ordered the patient to take three tablespoonfuls of this iodized spa every morning fasting; and thus, according to the newest chemical analysis, she was taking about the forty-eighth of a grain of *iodine* at each dose. After eight days of this treatment visible changes plainly appeared, consisting chiefly in this, that a much livelier activity was to be observed as well in the kidneys as in the outer skin. In the same proportion as the secretion of urine increased constantly and considerably, so the skin, previously rather cold and inert, was now almost constantly in a gentle perspiration, which, especially during sleep, often proceeded even to a complete sweat, and in this same proportion the abdomen, which a short time before had been so tightly stretched and extended to such remarkable dimensions, gradually began to grow slacker, and to assume a more doughy consistency.

After fourteen days treatment with the Iodized water the measurement showed a surprising diminution of the abdominal circumference. In order to keep the system sensitive to the further beneficial operation of the Iodized spring, I allowed an interval of several days in the exhibition of it, and as soon as I remarked that the secretion of urine began to become again somewhat more scanty, the use of the Iodized water was resumed, and at once an important increase of urine was remarked, and at the same time a visible diminution in the distension of the abdomen, which was constantly growing flatter. As the patient was otherwise quite well, I continued the use of the Hall water during a period of four weeks (with a single interruption of five days), by which the absorption of the encystic fluid was almost completed. Next, I ordered the patient, laying aside the use of all medicine, to live in the country, in a healthy woody region, for several months. By frequent exercise in the open air, by regular, light, nourishing food, she gained so much in strength and freshness, that after three months she returned to town in the exuberance of full health.

From a careful examination of the abdomen (now quite reduced to its normal dimensions and perfectly soft), it was ascertained that the contents of the cyst were completely absorbed; and as the surest proof of a fundamental and perfect cure might be accepted the fact, that four years have passed since, without the slightest trace of relapse having shown itself.

This case of perfect cure of an extensive ovarian cyst claims considerable interest for its own sake, yet this will be the more heightened if we take into account that this brilliant curative result was brought about solely by the operation of medicine acting specifically. It can not be disputed that *cannabis* developed a strikingly specific efficacy for the complication of symptoms that were present, yet is it undeniable that the greater part of the most essential benefit was attained by the use, for many weeks, of the Hall Iodized water; but whether it was exclusively the *iodine* contained in this spa to which we ought in preference to ascribe this cure, I might so much the more doubt, in as much as, during many attempts to cure hypertrophy of the thyroid glands by higher or lower dilutions of Iodine, I was not able to attain any important results, but since I have almost solely used the Hall water in such cases, and that in the doses above indicated, I cannot with sufficient emphasis extol the excellent effects of this mineral spring in such cases. It is surely the very peculiar chemical composition of this well, proceeding from the great laboratory of nature, which presents us there with a very peculiar medicine. If we cast a glance at the chemical analysis of this powerful medicinal spring, we find as the principal constituents *chloride of sodium, calcarea, magnesia, iodine,* and *bromine.* It is remarkable that the whole of these compound medicines stand in striking relation to the lymphatic system in general, and to several of its glandular structures in particular, with regard to their various indications of abnormal activity or inactivity. We cannot, however, along with this, accept as a fact that it is this or that one of its constituents in particular to which we have to ascribe the result of the treatment, but it is the peculiar mixture of certain chemical substances which nature herself accomplishes, forming a wondrous whole, endowed with wondrous medicinal power, whereby various morbid conditions still to be more precisely ascertained by careful physiological proving, are effectually counteracted. The fact that we perceive in these mineral waters a combination of medicinal substances which exhibit a striking affinity in their physiological operation, might well direct us approximately to an indication of their specific sphere of action; still, even if we comprise the general expression of the effects of the medicines represented in these springs, we get but a sort of general picture of their specific relations to the system. And in this generalism the claims, which we are accustomed to advance now-a-days for our doctrine of therapeutics, are not satisfactorily met.

So much is certain, that the predominant constituents of the Hall water agree, as to their effects upon the lymphatic system, in one point, viz., that by exciting a livelier activity in the absorbents, they are enabled to produce absorption of the lymphatic products abnormally deposited in individual structures as on the other hand, collectively, in their physiological relation to the outer dermoid system and the kidneys, they exhibit so far a visible resemblance, that they are able to determine these organs to increased vital action, and to more active secretions. Whether, however, this exhibition of action, by their united powers ("viribus unitis"), is merely an increase, or whether this spring has the power, by its peculiar combination of materials, to effect a quantitively modifying effect on the organism—to determine this ought, in my opinion, to be no difficult problem, and I would with the fullest confidence declare myself for the latter theory. We find, however, very similar constituents, only in different quantative proportions, in the Adelheid spring at Oberheilbrunn, and repeatedly I had occasion to convince myself that its mode of acting differs essentially from that of the Hall water. It must be highly probable, since the proportions of Iodine in the two spas are tolerably equal, that the considerably greater amount of Chloride of Sodium at Hall causes this difference in the medicinal effects, and especially makes the characteristic Iodine symptoms somewhat less marked; for it is a striking phenomenon, that by the continued use of the Adelheid spa, the shrinking and disappearance of the mammary glands in women so often occurs as a predominant Iodine symptom; whilst I never observed this phenomenon during the moderate use of the Hall water. From the fact that we view, and must view each mineral spring severally in its peculiar composition as a distinct medicine, the reproach with which the allopathic school assail the homœopaths, namely, that "we also often have recourse to these so complex mineral waters," will be perceived to have no soundness, and to be null and void. It is certainly much to be regretted that, up to this time, we have before us no really thorough and extensive provings (or at least very scanty ones) of the individual mineral springs, and that, consequently, we are for the most part obliged to draw our indications for the several springs chiefly from the cures already effected (*ex usu in morbis*), as well as, approximately, from the collection of the ascertained physiological effects of the main constituents of each spa. Yet will we indulge the pleasing hope that even these desiderata, towards which much is already contributed by many, will in time be supplied. Further, as to what concerns the *dose* in which the medicines are presented during the employment of the mineral water; this, even with a very moderate use of the wells, still is, strictly speaking, not quite (of the dimensions called) "homœopathic," yet must we, even in this respect, appeal to experience, the only true criterion, and as this teaches us that, in the cases which, from the peculiar course of disease, are specially suited to this or that spa, the moderate use of the waters has approved itself as beneficial in manifold disorders, without doing harm in other respects, so it would be in the highest degree superfluous on our part to bring forward apologies of any other kind, of which, however, without being obliged to seek for them, we should find no lack whatever. Suppose, for instance, we consider one of the widest spread species of disease, viz., abdominal plethora, with its various concomitant symptoms, which every year furnishes so considerable a contingent to the watering places, and especially to Carlsbad, Marienbad, Kissingen, &c. Who are for the most part the sufferers from this ailment? Epicures—people who, living in excess, and long accustomed to material good living, know how to tickle their palate with dainties of various kinds, in order to procure the admission of too large a proportion of food, and by these means to introduce into their body more nutritive matter than it can bear without inevitably suffering a disturbance of its functions, or, to speak briefly and in homely terms, good folks who have over-fed themselves. Then comes the legion of worshippers of Gambrinus and Bacchus, who, through the immoderate use of spirituous liquors, lay the foundation of excessive venosity of the blood. Lastly, appear those poor fellows who, confined by their vocation to a sedentary life, and often at the same time by intense mental occupation, give sufficient cause for venous accumulation and stases in the abdomen. In all these individuals, with their abdominal plethoras, produced either by eating, drinking, sitting or studying, the homœopathic physician, with best intention and his best choice of medicir cannot attain the desired effect of cure, at least, unless he is in a position to remove the exciting causes for a long time; and for the attainment of this object, the most suitable means is a residence of several weeks at a watering place. When once the patient gets there, he must necessarily conform to the dietetic prescriptions of his physician. Torn away from his ordinary surroundings, his mode of life will be a totally different one—a mode far more conformable to nature, a mode considerably conducive to the cure or alleviation of the complaint. Under such circumstances, which of themselves are enough to bring all the organic functions into a better track, a very important aid is rendered to the operation of every medicine that is otherwise suitable to the morbid condition. But to bring about this metamorphosis of the dietetic and other conditions of life without sending the patient to a watering place is, for the most part, quite beyond the reach of possibility.

In the above lines I ventured to remark that the dose of medicine which we employ in the use of the mineral waters, even ever so moderately, is still, after all, not strictly "homœopathic;" a circumstance to which the adversaries of homœopathy refer very significantly. Yet I do not properly comprehend with what reason, on the part of the allopaths, so much stress is laid upon the dose of a specific remedy, which in *our* eyes only appears somewhat large, as we still often stumble upon expressions in which these very adversaries express their wonder at the uncommonly powerful effects of doses comparatively so small, as are present in the mineral waters. Thus, we find in Dr. Oettinger's pamphlet, "The Adelheid's Well at Heilbrunn," the following very naïve remark, after he had spoken with astonishment of the powerful effects of the minute constituents of spas in general:—"It is ascertained of chalybeate water, that one pint, which contains at the most one-third to half a grain of Carbonate of Iron, if taken daily and for a long time, acts with more curative power than a scruple of this preparation taken in a solid form. The case is very similar with Adelheid's Well. This, if taken to the amount of one pint per day (equal to quarter of a grain of Iodine, and one-third of a grain of Bromine) acts more as an absorbent than grains of these metalloids, or scruples and drachms of the very same salts of *iodine* and *bromine*. To what then is this to be ascribed, this so mighty power of such minute doses of medicine contained in the mineral waters? Wherein does the secret lie that these decimal parts in proportion to the large doses taken in a substantial form operate more forcibly, and present more satisfactory curative results? Probably we ought by these observations to attain the conviction that the blood requires hardly more than the decimal part of a grain of medicine in order to produce essential changes in the circulating fluid, and thereby in the whole organism, and that, therefore, it is not the quantity of medicine swallowed, but only the decimal portion of it transfused into the blood that determines the physiological effects, and therapeutic results."

We perceive from the above quoted expressions of an allopathic physician, that they are gradually beginning to *have a notion*, that even with small doses of medicines great effects can be attained, although the opinion that they develope their efficacy through transfusion in the mass of blood cannot be thoroughly acknowledged as correct in all cases. I say "not in all cases," for that there are cases where the cure is accomplished, not before the medicine has arrived at the circulating fluid, seems to me liable to no doubt. And, in fact, there are undisputed groups of disease whose proper essence consists in this, that the blood is more or less deficient in this or that constituent; and as soon as that desideratum is supplied, the force of disease gradually abates, and the several organic functions return to their normal condition. Thus we find, for instance, in many cases of chlorosis, that the quantity of blood globules (always in direct proportion with the presence of a greater or a less share of *iron* in the blood) is frequently diminished two-thirds. If the patient gets *iron*, the volume of blood globules gradually increases, and also the symptoms of chlorosis gradually disappear. It is in these cases especially where, in my opinion, it becomes the duty of even the homœopathic physician to incorporate Iron into the system in larger quantity, until the blood has attained its normal proportion of Iron, and, therewith, also its normal quantity of blood globules. According to my experience, the form of disease which demands for the purposes of cure these larger quantities of *iron*, makes itself known by the following symptoms:—Complexion pale, waxlike, often somewhat puffed; remarkable anæmia of the mucous membranes, distinctly shown by striking paleness of the lips, the gums, the cavity of the mouth, and pharynx, and the conjunctiva; feeling of faintness and *sinking*, especially in the lower extremities, and also, consequently, peculiar laziness and indisposition to occupation; great weariness and sleepiness, even in the morning; frequent headache, like a pressure on the crown; pressive stomachache; shortness of breath; palpitation of the heart from exercise, especially on going up stairs; a kind of purr in the arteries, as well as the noted "*nun* sound" in the interval jugular on the right side, clearly observable on application of the stethescope. The menstrual discharge (which is, in general, of short duration, and passes off with labor-like pains) is pale, watery; very poor in blood globules; abundant in mucous and epithelial follicles.

Several years ago a young lady of 18, affected in a high degree with the above group of symptoms, came to me from Zwickau, in Saxony, accompanied by her mother, who expressed a wish, in accordance with her physician at Zwickau, to try electricity a few times on her daughter, previous to undertaking the earnestly prescribed journey to Franzensbad, with the idea of rendering the patient the more susceptible of the influence of chalybeate water. The benefit to be expected from this proceeding could not be made quite clear to me, and I hesitated to comply with this wish so much the more, as the patient had, especially of late, very frequently suffered from nervous headache. As, moreover, the journey to this spa was commenced about a month too soon, viz., in the beginning of May, and the patient, from the unfavourable condition of weather, had had no reason to expect any good results from the mineral water treatment, and as besides she was glad to spend some time with her relatives at Prague, whom I attended medically, I made the proposal (as independently of this my aid was required for violent intercurrent sufferings during the period preceding the intended journey to F.) to make an attempt meanwhile to combat as effectually as possible this ailment of one and a half years' standing, in order, at least, to try and obtain some improvement.

Although the patient had, during the time when she was under treatment at Zwickau, taken a considerable quantity of Steel pills and powders, combined with aromatic substances, with the sole result of producing frequent and violent fits of megrim, I nevertheless determined at once, supported by repeated experience, to exhibit *iron* again, only in another form much better suited to the organism. Beginning with very small doses, I increased them very gradually, so that the patient, within the three weeks of my medical attendance, took nearly an ounce of *carbonate of iron*, and by that means, with the co-operation of frequent walks in the open air and exercise, had gained so much, that at the expiration of that period she was able to go back to Zwickau, for there could not possibly be any more talk about a journey to Franzensbad, with the blooming face and perfectly healthy condition of the lady, who had so lately been such a sufferer. With the observance of a mode of life expressly prescribed, it was clear in the sequel that her ailment was radically cured.

The fact, that there are cases where even the homœopathic physician finds indications for exhibiting a medicine in unusually large doses, is so important that it must be desirable to submit this practice to a thorough examination. In the first years of my homœopathic practice, during the treatment of similar cases of chlorosis, I steadily set up the principle that, with a careful selection of the medicine exactly corresponding to the group of symptoms, in "homœopathic" doses, at the same time suitably regulating the diet and other conditions of life, even the defective condition of the blood must be gradually altered, and brought back to the normal condition, by inducing a more natural action in the organs appropriated to the elaboration of the circulating fluid. Yet I must candidly admit that, setting out on this principle, and grounding my medical practice thereon, I unfortunately found myself very often disappointed in my expectations. There would pass weeks and months, whilst the improvement went on so slowly and imperceptibly, that even the patience of the most patient, the confidence of the most confident, amongst the sufferers in question had to stand too hard a probation, so that they often found themselves obliged to have recourse to allopathic treatment; whereas, with larger doses of a preparation of *iron*, or the use of a strong chalybeate spa, I saw evident and permanent results brought about. No wonder that such experiences stirred me up to deeper inquiries, and the result was the firm conviction, obtained many years ago by various experiments, that those cases of chlorosis whose cause is to be found solely in a deficiency of iron in the blood, can only be cured in the surest and speediest way, by the introduction of larger doses of a suitable preparation of *iron* into the system, in order to repair the deficiency of that element in the circulating medicine.

I speak advisedly of larger doses of "*a suitable preparation of iron,*" inasmuch as, after many and various experiments, I hold it to be by no means unimportant, *which* preparation of iron be employed with a view to cure, as we clearly see from the above cited case, where, after the utterly fruitless employment of Steel pills and Steel powders, a different preparation of Iron produced the desired effect. It has been my good fortune, in some instances, to bring about the happiest results by the exhibition of *carbonate of iron*, beginning with doses of one-tenth of a grain and gradually advancing to half a grain, three times a day, and that within a few weeks. Yet for several years past, I employ with considerably greater certainty a different compound of Iron, which contains the main ingredients of the Franzensbad water, is just as easily assimilated as that water, is quite compatible with moderate bodily exercise, and offers the remarkable advantage of rendering a journey to the spa superfluous in the cases just indicated, and also shows itself by far more efficacious than the use of the chalybeate water sent from the spa.

Salts of Soda and Iron compose, as is well known, the most active ingredients in the Franzensbad springs, which take a tolerably high rank amongst chalybeate waters, and a very close imitation of this, though with a larger proportion of Iron, is this preparation (the one best of all suited to the organism) of equal parts of Carbonate of Soda and Sulphate of Iron, which salts, after their introduction into the digestive system, so far undergo a change that, in consequence of their chemical affinities, they become respectively Carbonate of Iron and Sulphate of Soda. Besides it appears, from the following experiment, that Sulphate of Soda exercises a very important influence on the formation and more active development of blood globules. If fluid blood be filtered, the blood globules pass right through the filter-paper; but if the blood be mixed with Sulphate of Soda, the globules stay behind on the paper (Dumas).

Many will perhaps regard these views as too material—will not choose to consider the digestive apparatus as a "filter," and yet such it is; for it is experience, and always experience that serves the physician as a leading star. The highest principle, the proper stronghold of the homœopathic system is always incontestably Dynamism; to it we must concede, with the fullest right, the largest sphere of action in the curative process of most diseases of the human frame; yet, we cannot altogether ignore Materialism, and not one of us does so, though not always conscious of the fact. When, in this or that case of disease, we prescribe an animal or a vegetable diet, containing more or less nitrogen, does this mean anything else than that we intend to induce this or that metamorphosis in the primary material of the blood? The fibrine, the albumen contained in the food, is changed into the very similar material of the blood; and as to the inorganic materials contained in the food, these, too, for the most part, are found again in the blood. When, moreover, our respected colleague, Gerson (in this volume, No. 6), informs us that he has had the opportunity of observing decided curative results from the employment of gross doses of *ferrum carbonicum* for prosopalgia in some cases of women, who had become anæmic from galactorrhœa, it must be allowed, with more than approximative certainty, that the abnomality lying at the root of this neuralgia must have consisted in a too scanty proportion of Iron in the blood.

Meritorious in the highest degree is, indisputably, the scientific contribution of my honoured colleague, Porges, of Carlsbad, who, in his brochure on the "Specific Operation and Physiological Analysis of the Carlsbad mineral springs," proceeding from the homœopathic stand-point, offers us much that is very interesting and worth knowing. Without going over his proving-experiments with a tiresome particularity (which in all cases is only individual), these experiments bear the character of a rational picture of the symptoms, which keeps more to essentials, and by that very means acquaints us the more clearly with the principal effects of the medicine, and thus attains a higher degree of practical utility. His view that each mineral water forms of itself a peculiar exclusive *whole*, a peculiar, though variously compounded, medicinal substance, is entirely to be approved of, and yet I shall take the liberty to add a few further remarks arising entirely out of my own individual view and comprehension.

The thermal symptoms of our colleague's proving present the result on the organism of a peculiar combination of different alkaline and earthy salts transfused into the system, whose bases consist of a marked preponderance of soda, potash, lime, and magnesia. The soda appears prominently in combination with Sulphuric Acid; but also with Carbonic, Muriatic, and Phosphoric Acids, which last also produce various salts with the other bases, and, taken altogether, supply the main constituents of the Carlsbad Spa. It is these very bases and acids above named which collectively, though in different proportions, are found in normally constituted blood, and thus Dr. P. has, strictly speaking, undertaken his proving experiments with an excess of this combination of salts, which is not utterly strange to the human organism. Now modern physiology has demonstrated that the alkaline salts in particular play a part entirely essential in the animal economy, inasmuch as they are absolutely necessary to the solution and dilution of the protein compounds, especially albumen, which mainly supplies nutrient matter to the system. Just as pathological physiology recognises in hyperinosis an abnormal increase of fibrine, and in hypinosis an abnormal diminution of it, so she discovers anomalies of the circulating fluid with excess of its most nutritive constituent, the albumen, and on the other hand, a striking diminution is often recognised. Whilst in these lines, in conformity to my special object, I intend to direct a special view to the morbid excess of albumen in the blood; I consider it needful to point out that, when the normal proportion of albumen is in the circulating fluid, the albumen is combined with soda, and as albuminate of soda kept in a state of solution.

Chemistry certainly demonstrates the occurrence of certain anomalies in the blood, whereby its contents suffer a greater or less loss, either of salts in general, or of some particular salts. Thus, for instance, according to Garrod's chemical experiments, the deficiency of potash in the blood is said to be the main cause of scurvy, and this form of disease is said to be brought on by the use of food that is deficient in potash, as, on the other hand, the articles of diet curative in this disease shew themselves abundant in potash.

Independently of the fact that even an absolute diminution of the salts in general often occurs, we find, in cases of the above-mentioned overcharging of the blood with albumen a relatively too small quantity of salts, whereby unquestionably there is caused an anomalous condensation of the blood. In recent blood, as well in the *liquor sanguinis* as in the *serum*, the albumen appears every where combined with soda, by which, in fact, it is held in solution. Now, suppose there should occur such a disturbance of the proportion between the substance to be dissolved and its solvent, that the former appears relatively or positively predominant; that is, the albumen of the blood exhibits itself in too great quantity to be dissolved by the salts which are present in a normal state of solution; then by the inspissation of the blood thus induced must its circulation be seriously impeded, especially in the capillary vessels, and thereby also would arise a tendency to stagnation, particularly in the portal circulation, where (as physiology shows), even in a perfectly normal condition, the movement of the blood is somewhat slower. The conditions under which the increased formation of albumen takes place are the same as those where a general increase of the volume of blood is produced, and as albumen is so clearly indicated by physiology to be the main material of nutrition, this may be considered as plethora properly so called. An animal diet, too copious and excessively nitrogenous, which of itself furnishes in considerable quantity ready material for the formation of albumen, by its easy digestibility (containing in essentials the same combination of elements as the blood, and being therefore easily converted into it) produces a palpable injury, inasmuch as, in my view, it offers too little difficulty to the digestive powers—too little stimulus to occasionally increased exertion. And it is just this monotony of the organic action in the laboratory of the blood formation, by which the nervous energy is involved, to a more relaxed and enfeebled, than brought to a more powerful development. Now, suppose there be added to this a want of the aid of bodily exercise, and thereby also of the supply and consumption of oxygen, that so important, so stimulating element, which, as it were, offers to the nervous system wine in a gaseous form; or suppose overstraining of the intellect comes into play, or the harass of the various states of mind which exhaust the higher nervous life, whereby too great inroads are made on the stimulating nervous principle of animal life, whilst the vital and biochemical processes of the animal economy are injured, and the assimilation is considerably retarded, then every one must clearly see that the consequent retardation of the collective functions of the abdomen may lead to inspissation of the fluids, with its various sad results.

I refrain from giving an enumeration of the symptoms which, under such circumstances, are wont to supervene with more than a hundred-fold variations, and which the suffering visitors of Carlsbad detail to their physician; and I merely remark that pendants to this set of symptoms (with some shades of difference which make them more suited to that watering place) are met with not less numerously at Marienbad, as both places exhibit a manifest resemblance in the predominant constituents of their mineral waters.

As, on the one hand, I think I may again give expression to my convictions, that the (often not inconsiderable) saline contents of the mineral springs should be considered as an agent that *chemically* influences the anomalous condition of the blood; so, on the other hand, I will by no means deny that it is in the variety and strange peculiarity of the saline compounds, as well as in the temperature of their aqueous solution that the specific and proper character of each spa is to be sought; I should add, however, the remark that the *quantitative,* or (in consequence of its superior powers of action) the *qualitative* predominance of one or the other medicine must serve as the criterion. And thus we find, in the results of Porges' provings of the Carlsbad springs, where the *sulphate of soda* appears predominant, an evident similarity in the groups of symptoms to those recorded in the Annals of Hartlaub and Trinks, as results of the proving of that medicine.

[The mineral water above spoken of is that of Hall, near Linz, in Austria, and its composition is as follows, in 16 oz.:—

	Grains.
Chloride of Sodium	112·0412
„ Potassium	0·0499
„ Ammonium	0·0330
„ Calcium	2·9330
Chloride of Magnesium	2·6220
Iodide of Sodium	0·0607
„ Magnesium	0·2849
Bromide of Magnesium	0·5176

	Grains.
Phosphate of Lime....	0·0261
Carbonate of Lime	0·4808
„ Magnesia	0·2419
„ Iron	0·0876
Silicic Acid	0·0730]—*Ed.*

WHAT IS HOMŒOPATHY?

By Professor Hoppe, Basle.*

(Translated by J. H. Nankivell, Penzance.)

When we say that homœopathy is a system of therapeutics, according to the principle of similars, we utter a truth most certainly; nevertheless this explanation is incomplete, inasmuch as it fails to specify the treatment in an objective manner.

Besides this explanation has the effect of repelling every one who is not a homœopath, and who does not sufficiently recognize the fact, that many non-homœopathic practitioners do at times, either by accident or with semi-consciousness, treat disease homœopathically; and that at other times, their practice is carried out in the same sphere of the animal tissues as that of the homœopath: consequently, this explanation does not have the effect of bridging over the chasm which still separates homœopathy and allopathy.

Moreover this explanation is not sufficiently intelligible to the uninitiated, nor is it very easily comprehended at all.

In fine we may be allowed to add that the law of similars has been by no means thoroughly investigated, and the facts on which it is founded have not been so completely enquired into, that the formula (*similia similibus curentur*) can be regarded as an unobjectionable or happy explanation of the principle of homœopathy.

The chief fault I have to find with the explanation is, that it does not define the anatomical object of the treatment, whereby alone a thorough understanding of the subject can be attained. A clear apprehension of the subject is indispensably necessary, both for those unacquainted with, and for the adherents of, homœopathy.

---

* From the *Allg. Hom. Zeitung, Bd.* 64

There have always been some general expressions by which it was usual at different periods to indicate the character of the prevalent medical art, and these expressions still remain amongst us. Amongst these I may for example mention the following: "Hippocratic Medicine;" "The Empirical and Methodic Schools;" "The Schools of the Solidists and Humoralists," &c. These and all such expressions are for ever passed away. Besides it is evident that such ideas which express only a part of the whole thing, are not very satisfactory.

There are in modern times two expressions which have a degree of stability in them, viz., "tissue-therapeutics" and "cell-therapeutics; the latter not yet positively enunciated, but rather hoped for. It must be conceded to me on the ground of my investigations and experiments that I have laid the first foundation stone of tissue-therapeutics, still I cannot approve altogether of the expression "tissue-therapeutics," for the tissues form the different parts of the body, and therefore the term tissue-therapeutics expresses little else than the therapeutics of the body in general, and serves no useful purpose. Nevertheless it cannot be denied that, with the expression "tissue therapeutics," *something* is gained for a right comprehension of the whole subject, for the expression "tissue" throws a physiological and pathological light upon the body in general, and it may serve to recall to our mind the whole compass of histology with the peculiarities of each tissue; and further it reminds us that we should investigate and treat each tissue and its affections according to their several natures.

Therefore the expression "tissue-therapeutics" is in certain respects an advance. But all is not tissue which falls within the domain of treatment, and moreover the expression is too general or indefinite. The term "solids-therapeutics" formerly meant something similar, and yet it has fallen into disuse; of the expression "cell-therapeutics" we can say the same. The cells form the tissues, the tissues form the body; and therefore "cell-therapeutics" is also "body-therapeutics." But this expression goes further than "tissue-therapeutics; it leads us to the primary structures of the body, and prompts us to make a keener and deeper insight into the phenomena of our organism; so that in this expression there is again an advance, not essentially of a therapeutic kind, but of a pathological character. For the term "cell-therapeutics" aids us but little in the actual business and peculiarities of medical treatment, whilst it fascinates us by implying a knowledge which does not yet exist; it deludes us a little—indeed, I may say, a great deal.

It is only as opposed to the therapeutics of the solidists and humoralists, and to other exploded terms, that "tissue therapeutics" and "cell-therapeutics" have a meaning; but even as those older terms have no longer any value, so both these more modern expressions are losing their importance.

The terms "homœopathy" and "allopathy" originated in medical polemics, and have become the mere nick-names of parties. But these words imply something so violently severed from the whole medical art, that it is difficult to perceive their exact relation to the latter. They both rest on an anatomical basis, but they do not indicate with clearness and distinctness the anatomical object on which they operate, and as they do not embrace the whole field of medical treatment, so do they leave us in a state of uncertainty as to the extent of their several spheres, and the limits of their operation—consequently they are to a certain extent unsatisfactory. One is not in a position to express an opinion on the boundary line between homœopathy and the grosser mechanical and chemical modes of treatment, until one is able to give a clear and explicit answer to the question "What is homœopathy?" Hence I agree with Dr. Von Grauvogl that the word homœopathy is not applicable as indicating the character of a complete system of medical treatment, but the expression is indispensable in order to characterize a more limited sphere of medical action.

Meanwhile, the question presses on us "What is homœopathy?" or in other words, what is the treatment that must be pronounced homœopathic, or at least mainly homœopathic?

In order to answer this question, I am obliged first of all to draw out a schema in which will be arranged every kind of medical practice, to whatever school it may belong.

The schema is as follows:

Class 1. Includes medical treatments directed to the functions* of the active tissues, or in short to the animal functions. All these functional treatments may be comprehended in two orders.

1st order.—The calming treatment of the animal functions.

2nd order.—The exciting treatment of the animal functions.

Willingly do I admit that both expressions "calming" and "exciting" should be replaced by more apt expressions, however this is not possible at present, and we must provisionally be contented with these general ideas. Now each of these orders divides itself into as many species as there are active tissues, and accordingly we may for the present indicate at least the following species, *e. g.*

Calming and exciting treatment of—

1, The nerves of blood-vessels; 2, of the other motor nerves; 3, of the nerves of sensation; 4, of the mental actions; 5, of the cells.

This schema is to be perfected in accordance with the investigation of the tissues, and of the action of medicines on those tissues.

Class 2. Includes also further medical treatments directed to the material of the perfect tissues, and to those material conditions existing on the same or within the same; and these material treatments may be divided into the following five orders.

1st order.—Composition-altering treatment.

2nd order.—Material-restoring treatment.

3rd order.—Protecting (prophylactic?) treatment.

4th order.—Treatment for the restoration of suitable form and position.

---

* *Thätigkeit*, here and throughout the essay translated "function," is, we are aware, not exactly expressed by this rendering. "Vital action" would perhaps best convey the author's meaning, but the word we have adopted is more convenient, and perhaps sufficiently literal.

5th order.—Abstracting treatment.

It is clear that the three last orders also comprehend the whole operative action. By these material treatments we try to restore the form, composition and normal relative capacities without intentionally selecting the function of the tissue itself for our attack. So far, however, as this happens contemporaneously, we perform at the same time functional cures, and we must then endeavour to distinguish accurately what belongs to these functional cures, and what to the mechanical or chemical attacks on form, composition and relative capacities. Besides it is difficult to find for the second order of medical treatment an appropriate general expression, for our functional cures also depend upon material interference in the mechanism or chemistry of the active tissues, but still the alteration of function is always the object we endeavour to effect; whilst in the material treatments the alteration of the composition, or of the form, or of relative capacity, is our chief aim, with which the thereby disordered function returns of itself to the normal state.

It is therefore very probable that both orders of medical treatment will be occasionally still further subdivided or reunited, when we shall be able to direct functional treatment to be conducted so as to make the material fundamental condition, on which an abnormal action depends, the ostensible object of attack; and thus for instance, as regards common salt, we need not say that we calm or excite action, but that we merely withdraw from the abnormally acting structure a certain quantity of water, of which it has too much, in order to allow the structure to return to its normal condition.

Every classification will contain, both now and for a long time to come, much that is artificial; but the fundamental idea of the classification, however completely it may be worked out, will remain essentially the same.

In the above schema every mode of medical treatment of each party may be included, and no one can treat disease by any mode not included under the headings of these schemas: and further whatever of good and true a medical system may have, must find its natural and rightful place in this schema, when fully developed.

There will be no harm in designating fundamental methods the general modes of treatment and manners of operation which I have laid down in this schema, for the first time, according to a fixed plan, and founded upon the tissues of the body instead of the former planless, unmethodical, desultory fundamental methods, rubrics and categories. These different modes of treatment form the framework on which the material of a universal therapy unfolds itself, and surely homœopaths will not object to see all medical treatments comprehended under general modes of treatment, provided the various ascertained facts and laws obtain their full value in the special carrying out of each.

There are treatments of the animal functions of the tissues and treatments of the material conditions existing in the tissues, or in short there are functional modes of treatment, and there are organic modes of treatment.

Now, as all which a physician can do, in a medical point of view, is referrible to one or the other of the general modes of treatment described, the question arises under which head we are to class Hahnemann's medical treatment? Certain it is that some of Hahnemann's treatment is according to the second class of medical treatments. But most of his cures, and the most notable of them, those by which he became so eminent, and which led him to establish his doctrine, and to create homœopathy, were cures under the first class of the schema we have set forth, they were cures of the functions, and by means of the functions, of the active working tissues; they were, in fact, functional cures.

But yet there have always been physicians who have many times effected functional cures without being aware of it, and every one who has at any time administered medicines, though he may have occasionally employed a treatment productive of alteration in the composition or nutrition of the organism, still he makes, for all that, in a predominant degree, those mysterious cures, the material changes accompanying which are still unknown, which are effected by influencing the morbidly deranged functions of the actively working tissues.

Whoever administers China, Opium, Mercury, Iodine, Arsenic, Potash, Soda, Sabina, &c., does, undoubtedly, perform in his practice functional cures, and, in fact, functional cures chiefly by directly influencing the morbidly acting tissues. But further, he who effects (hydropathic) cold water cures; he who applies electricity, he who practises the gymnastic art, he who treats mental affections by means of mental influences, &c., each of these effects functional cures—that is to say, cures through the functions of the active tissue.

Hahnemann's cures were therefore functional cures by aid of medicines. But in contrast with those who employ medicines according to vague tradition, or merely according to hypothetical explanations of their effects, Hahnemann's cures were medicinal functional cures, accomplished according to the principle of the operation of similars.

Hahnemann's therapeutical treatment is then homœopathy, and homœopathy is also the curing of diseases by means of directly influencing the morbid tissue functions by medicines given in accordance with the law of similars—in other words, the homœopathic treatment means functional treatment with similarly acting medicines.

And inasmuch as the law of similars is alone accurate, binding, and regular, but every kind of vague treatment is of no value, so we may assert briefly that homœopathic treatment means performing functional cures according to nature's laws, or, simply, functional cures.

A law of similars can moreover only be for the animal functions, for the functionally acting tissues; and when we therefore speak of cures according to the law of similars, we can understand nothing else but cures effected in and by means of the animal functions.

In all professions there is, in fine, an empirical and a rational mode of action; and to perform, or rather to imitate, functional cures, without any further and deeper investigation, and to do this by means of small doses must be considered homœopathy, and is indeed part and parcel of it.

I have remarked above that there are as many kinds of functional treatments as there are of tissues possessing active functions. We address our treatment to the functions of the cells; but in the meanwhile our knowledge is sadly limited on this subject, and willing as I am to allow that Calcarea and Silicea may be cell medicines, still both may be merely compensatory medicines for the chemical requirements of the cells, and Calcarea, at least, can also operate on the blood vessels and thus effect a vascular cure, where we imagined that we had before us a cure through the cell functions.

We make, *e.g.*, functional cures by acting medicinally on the brain, and yet the medicines which act on the brain cells can also act on the vessels of the brain, and in these produce a mere vascular cure, where we only contemplated effecting a cerebral cell cure, for we are unable sufficiently to isolate the action of the medicines on the cerebral cells, and we have moreover very few remedies that act exclusively on the brain cells.

In the same manner we can effect a functional treatment by acting on the nerves of motion and of sensation; but the medicines which act on these nerves, act also on the nerves of the blood vessels, and thus on the vessels themselves.

Certain as it may be, that by means of medicinal remedies we treat the functions of all function-performing tissues, equally certain is it that Hahnemann's treatment, that the treatment of homœopathists, and that the functional treatment of all practitioners is chiefly performed on the functions of the vessels.

Indeed, it is chiefly vascular cures that are effected by practitioners, and the homœopathic cures are therefore not merely functional cures, but they are in a much greater proportion cures of the vascular function, and they are this so much the more than the cures effected by other physicians, just because the small doses are capable of influencing exclusively the functional activity of the blood vessels.

"Functional treatment" and "dynamic treatment" are moreover two very different things, for here there is not any question about the point that cures are effected by means of such material medicinal actions as we are still unable to discover, and hence call them dynamic; but the question is simply this, that these cures are effected by influencing the animal functions, and more especially the actual diseased animal function.

Finally, albeit homœopathy occupies itself in a more especial manner with medicinal treatment only, still all other irritants (mechanical, thermal, or electrical) can also, according to the law of "similars," be allied to functional treatments.

It is impossible that the conception of homœopathy can be floating about in idealism, and merely rest on a law. It must, on the contrary, be fitted with and built upon an anatomical basis. Now the animal functions, the functions of the active acting tissues are that basis. We must also consider that in the entire structure of homœopathic doctrine, there lie two distinct and entirely separate acquisitions:—

1st. Tissue-therapeutics, with the law of "similars."

2nd. The doctrine of the efficacy of minute doses.

When a physician gives small doses, he undoubtedly profits by an important discovery of Hahnemann's, but still he does not on that account necessarily practise homœopathically. Further, when a physician practises a compensatory treatment with Calcarea or Silicea, in small doses, he then practises a modern physiological system by means of one of Hahnemann's discoveries; but even though, thereby, he practises in accordance with a law of nature more correctly than physicians in general, yet is this *not* homœopathy.

Homœopathy, as an eminently anatomical and physiological doctrine of therapeutics, refers solely to the treatment of the active tissues, and all that Hahnemann has discovered besides for medical practice, must not be confounded with his tissue-therapeutics, professedly based on a rule of treatment.

This was certainly Hahnemann's greatest merit, that he overturned the depleting, decomposing, dissolvent, absorbent, and other unmethodical fundamental systems, and raised to a universal system what we must now designate the treatment of the animal functions, and made it a study highly deserving of attention, though perhaps, in some respects, too one-sided; and it would have been long enough, ere functional treatments, even though the anatomical rationale was unknown, would have carried the day in practice. Through the whole history of medicine, a suspicion certainly existed that a direct attack should be made upon the diseased parts themselves; and in point of fact, Hahnemann appeared as a Messiah of physic, and laid before the world the direct treatment, the tissue treatment, the functional treatment, thoroughly elaborated, and ready for imitation.

This is therefore his greatest merit; and although the discovery of the effect of small doses is but little inferior to it in importance, yet the system of treatment that constitutes a method, or we may say of it in contrast with the traditional treatment, a school, cannot rest upon small doses, but must take its stand on the therapeutic object, on the tissues to be cured, so that consequently the functional treatment, or the direct treatment of the active acting tissues, forms that which is essential and characteristic in the Hahnemannic therapeutic system.

Let us take drugs and perform experiments with them. Now, there are nerve-fibres, muscles, vessels, branches of sensitive nerves, cells, in which the drugs furnish us with symptoms which we had not expected, symptoms which depend no doubt upon material changes in the atoms of the active substance of the tissues, but which we are unable to designate otherwise than as phenomena of vital action. Now, notwithstanding these functional manifestations elicited by experiments with medicines; notwithstanding the fact that in the whole of creation, there does not seem to be anything which does not act on the activity of the blood vessels; notwithstanding the changes which we can produce on the blood vessels by medicines, or antidotes, or by repeated doses on the same vessels; notwithstanding the visible revolution by which a dilated vessel springs into contraction, and the contracted vessel into dilatation in our experiments on the operating table; notwithstanding the sudden disappearance of hyperæmias during the rapid motion of the animal; notwithstanding the unsatisfactory character of all explanations hitherto given of the curative operation effected on the animal functions; notwithstanding the complete resemblances of spontaneous recovery to processes observed during experiment—notwithstanding all these facts, we are always looking about for physical, chemical, electrical, atomic facts, rubrics, and ideas; but still we cannot refuse to admit the importance and the correctness of the modest expressions, "functional operations" and "functional treatment."

As, however, every physician does not exclusively practise functional treatment, as also impartiality requires us to be masters of the whole sphere of general medical treatment, and as science must ever tend towards universality, so will it be impossible for the idea of functional treatment to remain the essential of a doctrine.

Cells and tissues are given, functional treatment is provided, operating on the active acting tissues is self-evident, and a school which seeks to attain universality, must henceforth carry on its front a more general all-embracing idea. The principle of similars cannot serve as such an idea, and hence, Herr von Grauvogl is justified in the expression proposed by him—"*Therapeutics according to nature's laws.*"

The expression, "According to nature's laws," will also certainly eventually disappear, when the laws of nature have been discovered and become familiar, and nothing will remain but the word "therapeutics"—nothing but one single therapeutics for all physicians, and then will homœopathy have risen up in, or obtained undisputed sway over the whole of therapeutics.

However, in order that I may express myself clearly, the expression "homœopathy" must remain until the functional treatment is more thoroughly decyphered in regard to the material changes produced by it, and till then this expression will be indispensable, inasmuch as we practise functional treatment according to the law of "similars." Therefore, as long and as far as the "law of similars" obtains in "functional treatments," so long and so far must these treatments be designated "homœopathic."

ON EXTERNAL REMEDIES, AND ON SLIGHT DEFORMITY OF THE CHEST AS A CAUSE OF DISEASE.

By Dr. LIEDBECK, of Stockholm.

MY ideas about external applications of remedies have already been published in sundry periodicals. I have lately, in a case of tubercular dyscrasia, in which Iodide of Iron produced hæmoptysis, seen a complete cure by Protiod. ferri gr. j, Aq. ℥ iss externally applied, one teaspoonful night and morning. Every body had considered the patient as beyond recovery. However, at present, she is well, has lost the night perspirations and expectoration, and recovered a healthy colour on her cheeks. She is moreover quite erect, instead of being as previously, round-shouldered and stooping.

In children with abdominal atrophy often complicated with obstinate diarrhœa, and where allopathic physicians had pronounced that everything would be of no avail, and where the little patients were lying with immoveable glassy eyes, I have often seen immediate relief follow the application of a cataplasm of brandy on the abdomen; and in cases complicated with diarrhœa, I have cured it with thirty drops of the wine of Tokay, a popular remedy in Hungary not to be despised. The late Professor Wahlenberg was of opinion that its effect in such cases depends on the presence of some calcareous elements in the wine.

In the case of Mr. Aspegren, a 79 years old colour-sergeant, who suffered from hypertrophia excentrica cordis, I have seen, for a short time at least, a more decided relief follow from Digitalin gtt. j than from Digitalis 3, as well as R. Digitalis, dispensed from one of the allopathic chemists': afterwards Digitalis 3 had a better effect. The patient suffering afterwards from dysphagia was cured by Bell. gr. j, Aq. dest. ℥ js, one teaspoonful every other hour (à la Popper).

It would be interesting for me to know if any of my colleagues in England have already made observations relative to an affection of the heart, about which I am going to speak, and for which our medical gymnastics is the true specific, in accordance with the nature of the affection, and our idea of healing effects in general. In perusing some anatomical author (the name has escaped my memory for the moment) my attention was drawn to the fact that, besides the well-known conditions of the pelvis in woman being wider than that in man, the chest of man being in every dimension larger than in woman, whilst his pelvis on the other hand is narrower but higher than in the female sex; we find, on comparing the angles of the arcus pubis and the angles formed by the cartilages of the false ribs of the right hypochondrium with the left, another characteristic difference, viz., the angles of the arcus pubis in woman larger than 90° but in man acute, whilst the hypochondriacal angle in man is larger than 90°, but in woman smaller, or at the utmost amounting to 90°. These conditions pre-suppose every thing in normal development as regards the lower part of the thorax. When the hypochondriacal angle, as appears from underneath the integuments, on the contrary, is less than 90°, the thorax in both sexes has not its normal form and development. It is evident that in women, from the fashion of distorting the figure by the use of stays, especially when tight laced, the hypocondriacal angle becomes more acute through the depression of the ribs and their cartilages, by which the free action of the lungs becomes impaired, causing palpitation, oppression of the chest, involuntary sighing, &c. The mechanical effects of the pressure of the corset become still more important from what I have observed in *post mortem* examinations, as regards the liver, which frequently is forced to abnormal growth, in so far as, contrary to its normal form, the lateral diameter is diminished whilst the antero-posterior diameter becomes larger: nay, the liver is even pressed downwards below the edge of the ribs, in order to find place where place is to be foumd, which is afforded by the yielding and relaxed abdominal muscles. It is even possible that the dress of the woman is the cause that the sternal angle at the pit of the stomach is only acute, or, at the most, a right angle, never obtuse, except in cases of considerable emphysema, which obliges her to leave off both the corset and all tight fitting dresses around the lower part of the thorax.

In man, using generally a looser dress, the precordial region is generally normal with the angle of the cartilages larger than 90°. But I have even seen men where this angle has presented an acute opening. In such cases we find often tubercular deposits in the lungs, or a secondary affection of the heart, depending on the pressure of the ribs on the heart, which thus being irritated, an increased action (palpitation) is set up, causing hypertrophy, or even under certain complications, atrophy. The former is the case with those who do not suffer from tubercular disease, the latter is the case in phthisis pulmonalis and has been proved by *post mortem* examinations. Occasionally this abnormal form of the thorax is also accompanied by secondary bronchitis. With every exertion follows great excitement, anxiety, &c., which increases the palpitation of the heart, often causing even fits of syncope.

I have observed lately a still more curious case in which the hypochondrium of the left side was depressed in an acute angle against the right one. The patient had been treated allopathically with Sal-ammoniac, Digitalis, &c., of course with no result. Professor Branting was of opinion that this depression was caused by a paralytic state of the intercostal muscles. How far I am of the same opinion the copy of my certificate, without any bias for ancient or modern modes of treatment, will shew. The result of the gymnastic treatment which was at first carried out in the country by Mr. Thorein, M.A., under the superintendence of Professor Branting, will be seen hereafter. Dr. Jentsen, the patient's former physician, had declared that neither gymnastics nor homœopathy could do any thing in this case, declaring at the same time that he could do no more himself. With all this Dr. Kreysig's old expression is quite to the point, "Heart disease is a very sad disease."

The cause of this paralysis intercostalis is probably the following: the in other respects powerful young man had whilst living in the country been perfectly well, amusing himself with shooting, swimming and other sports. At once, on going to the University of Upsala, he is confined to a small room where he lies continually on his left side, keeping a heavy book in the left hand. After some months' constant reading he commences to feel unwell, and after an unsuccessful examination the present symptoms became manifested, and though he, during the following session, passed his examination, the injury was already done. At present he has a kind of fits; he gets livid, the extremities become cold, he feels as if he should die, he looks quite bewildered and loses his speech, the respiration is very much oppressed, and at the same time there is *congestio cerebri*, the head feeling heavy and confused. It had been surmised that this could be cured by some sedative pills and foot-baths; and to keep the bowels open Rhubarb, Cream of Tartar, Salts were not omitted, besides cuppings, &c. The pulse is feeble, large; when the fits occur it is said to be intermittent. He felt some relief from my advice to use an enema of cold water when the bowels are confined, without any medicine. My certificate was as follows:—

"That Mr. John Alfred Erling, whom I visited last week in the Rectory of Huddinge, is suffering from disease of the heart, principally caused or accompanied by paralysis intercostalis sinistra, and thence is unfit to enter into active service, unless by the use of appropriated medical gymnastics for some *months*, and probably as an adjuvant, some hydropathic treatment, his affection becomes alleviated and gradually conquered, which according to my opinion, never can be obtained by any kind of pharmaceutical remedies. This I hereby testify as my opinion, which I corroborate with my oath as physician; so God help me here and hereafter.—Stockholm, 15th of July, 1858.

"P. J. LIEDBECK."

This decided opinion of mine had been confirmed through repeated observations of the effects of a rational medical-gymnastic treatment in similar cases, amongst which I only mention the following: Mr. Granberg, commander of a merchant ship, was always well whilst on sea, but no sooner did he put his foot on land than he became more or less suffering. On examining him a few years ago I found the hypochondriacal angle acute, the beat of the heart strongly vibrating against the left side of the thorax. He had used divers allopathic medicines without the slightest benefit. I did not prescribe any homœopathic medicines for him, but sent him to Professor Branting, who perfectly cured him. The following year, however, no sooner had he come on shore again than he felt his former symptoms; furred tongue, dry skin, precordial oppression and anxiety, general sinking feelings along with strong pulsation of the heart against the thorax, disproportionate to the feebleness of the pulse. Persuaded by his former physician he went this time to Dr. Satherberg's gymnasium, and became well, probably by the application of the same movements as taught and employed by Branting. The patient praised highly the gymnastic treatment, thanking me, in the following words, for my advice: "Had you not advised me to use medical gymnastics, I should probably have died, or at least I would have become a constant martyr to the abominable drugs from the chemists' shops."

The result of the movement-cure in Mr. Erling's case has entirely justified my opinion. The treatment having been continued in the country for a couple of months, the patient could be removed to Stockholm, and for the sake of convenience the treatment was thenceforth administered by Mr. Brouhn, director of the gymnasium in the southern suburb of Stockholm. Though improved and living quite close at hand, he was obliged to rest sixteen times in the street before he arrived, quite out of breath, and livid in the face. His treatment commenced the 2nd November, 1858, till the end of May, 1859, thus lasting for six months. In March the patient found himself so much improved that he, contrary to the advice of Professor Branting, resumed his official duty as a notary. Though occupied only one hour daily his symptoms became, however, so much worse, that he was obliged to discontinue, and to procure a new certificate for leave of absence.

I am aware that the physician to whom he applied for a certificate, as well as others, considered his suffering to be primarily hypertrophy of the heart, and that the alteration in the form of the thorax was only secondary; but nevertheless my opinion is decided that the hypertrophy, if there ever existed one, was caused by the paralytic state of the intercostal muscles of the left side, in consequence of which the heart not having sufficient room became oppressed, and the beat against the thorax apparently larger than if both sides of the thorax had been symmetrical. I think it was Claude Bernard who, by pressure with the finger outside the thorax on the left side where the beat of the heart (ictus pulsus cordis) is felt, produced in the rabbit first syncope, and after continued pressure on the same spot, the death of the animal.

Mr. Erling had exposed himself to a somewhat similar influence; by remaining month after month lying constantly with the book in his left hand, with the elbow and arm closely pressed to the side, whilst making annotations with pencil with his right hand, as before-mentioned. To return to Mr. Erling's recovery. In the months of June, July and August, he passed through a febris lenta nervosa. The gymnastic treatment was afterwards resumed in the month of October, and in the course of a month he was quite well and able to resume his duties.

In the meantime I had taken the opportunity of examining his thorax and found its form much more normal, although as no mensuration had been made, the perfect symmetry was not fully ascertained.

THE LAW OF SIMILARS, IS IT UBIQUITOUS?

By Francis Goding, M.D.

To us who recognise the law of similars as an established principle regulating the practice of medicine, it seems strange that there should exist any doubt of the universality of its application to the treatment of disease. And yet there is distrust! Why and wherefore?

We speak of a homœopathic law of cure—and truly so; but is it one altogother excluded from disturbance of action when subjected to opposing conditions? What is law? The most comprehensive definition of "law," as understood by the best authorities, is—that whether in reference to the universe of matter or mind, law is simply a *rule* of action, or some definite mode in which force or motion proceed toward the accomplishment of an end. As such it operates within certain prescribed limits or conditions; and so long as this is the case, it may be said to act in a fixed and determinate method. Law then, in itself is neither force nor motion, but the *rule* of action which these powers in their operation are made to observe. Now, we may safely hazard the opinion that there are no laws operating in nature which are not to some degree, either directly or indirectly, liable to the influence of disturbing causes, which for a moment may interfere with, or impede, the otherwise orderly and unbroken series of their operations. We say for a *moment* in a limited sense, because it is easy to see, that if there could be any force or motion *without* a regulating method or law of action, their operation would necessarily be chaotic, and would tend to the subversion of all order and arrangement in nature. Impediments then to a rule or law of action are not absolute or final; they are only occasional and exceptional—not necessarily destructive of the end proposed. The tendency of the magnet, for instance, to point north and south is called the law of polarity, and we know that it has disturbing causes influencing its operation; yet how essential is it to the mariner! The law of polarity, notwithstanding these irregularities, still holds good, and by a compensating process becomes serviceable to the safe navigation of his vessel. Does this, or does it not, illustrate the law of similars? Take another familiar illustration. The mechanism of a watch is set in motion—a fall or an accidental blow often stops the action which, by a law of mechanics to "take note of time," should be uninterrupted; a similar slight concussion sets the watch a going again. Is the law of mechanics here obstructed, less universal, less adapted in its application to the construction of time-pieces? It may be objected, that in this particular case, the end cannot be said to be accomplished, since the time by the stopping of the watch is not correct. True; but then it is only one watch—that individual watch, that is temporarily affected, while the law of mechanics still holds, and will always hold, good even for the same watch, and a thousand others besides.

Indeed, we scarcely know any laws which operate in nature, such as gravitation, chemical affinity, attraction, &c., that are not, philosophically speaking, in some way or other, subject to occasional variations or disturbance—however, practically speaking, it is admissible to describe and view them as "fixed and determinate." Look to the perturbating forces of the Planetary bodies, causing those deviations from their regular elliptic revolutions round the Sun—to determine the effects of which is the great problem of Astronomy! Are not these disturbances compensated in the long run of their periodical courses, and hence is not the stability of the Planetary system a proof that it contains within itself no element of destruction, but that the ceaseless journeyings of the orbs which compose it are calculated to go on for ever?

If these things be true, is our law of similars an exception—exempt from disturbances which, of some kind or other, affect other laws? Surely there is nothing absolutely perfect. Perfection belongs not to this sphere—is merely relative, and the old adage, "no rule without an exception," is just. If all and everything were perfect, what becomes of the law of progression?

I have been led into the above train of thought by a frequently recurring question asked by many a doubting, nervous, and anxious patient. Even professional *confrères* are not free from an implied misgiving on this head. As far as I can learn, it has its origin in a somewhat dogmatical assumption that homœopathy (in which term is included the therapeutic law of cure) is in some places so influenced by climatic and atmospheric conditions, as to be inefficacious in the treatment of disease in those particular localities. Deluded by this broad and gratuitous assertion—a weak invention of the enemy—there are people who repeat this calumny under the full persuasion that homœopathy is not reliable as a means of cure, and thus give extension to a disparaging rumour against the system; received, no doubt, on the *ipse dixit* of an opponent of the system, who fathers the thought and propagates it, without having troubled himself to satisfy his mind whether or not it be a wrong conclusion; the question is not unusually, by an invalid coming from a spot alleged to be obnoxious to homœopathy, put thus,—"Will your remedies act in such a place? I would like to take them back when I go home again, but I am led to believe they will be of no use there." Nor is there at times a lack of assigned reasons for this presumed failure of the system—evincing plainly enough that doubt and distrust *do* exist. It is to be observed, that on the part of the patient the doubt confines itself to our medicines, probably because, ignorant of our literature, he knows little or nothing of the law regulating the administration of our remedies. We can, therefore, all things considered, make allowances for his incredulity at our small doses; but why a colleague should entertain misgivings of the universality of the law, is hard to discern, unless indeed, like the patient, he is haunted by ghostly apprehensions regarding the efficacy of our remedies. To him I would say, in the words of Polonius,—"Take each man's censure, but reserve thy judgment."

Taking, then, a broad view of the subject as involving points of practice of both the old and the new systems of medicine, and reasoning, as far as we can command them, from facts to principles, let us duly weigh the matter, premising my own belief to be—*that the law of similars, as a general principle of therapeutics, is the same everywhere, however modified it may happen to be by occasional conditions.* As in physics, the character and tendency of the moving principle should be first understood and established, before we can attend to the impediments of friction and the resistance of the air; so in medicine, it follows that a law of cure must be first discovered and recognised ere it be sought to ascertain how and in what way it is liable to be affected. And that such a law—the law of similars, in spite of all impediments, does exist and produce immensely important results, every one the least acquainted with our literature and the logic of facts must perceive, who contemplates the present condition of medicine as compared with what it was before the old school became a questionable teacher of the art of healing, and Hahnemann the discoverer and the pioneer of an improved system.

But has the sweeping allegation to which I have alluded against homœopathy as containing a law of cure (which has been proved to exist by the fairest induction, independently of therapeutic agents and the modes of exhibiting them), been substantiated by any well authenticated statements, or upon any rational grounds of inquiry? I think not. Until, then, sufficient evidence be adduced confirmatory of such a change, the bare assertion must stand not only not proven, but directly at variance with certain well known facts and observations. Let us advert to these and to such other data as I possess. Homœopathy has obtained not only a firm footing, but is at the present day, more or less, practised everywhere—on the continent of America, from Canada to the Brazils, and in this extensive area is found comprised every variety of climate. Cold and heat in their extremes, humid and dry atmospheres, sea and land breezes, differences in races, habits and customs, these exist to exercise their influences on the human organism; and yet, throughout this vast tract of country, no complaint from our colleagues has reached our ears that the grand principle of cure —the law of similars is so far in default as to be inert—that in certain localities it is nugatory and of no avail. I prominently refer to America as presenting the widest range of physical circumstances, especially for obtaining cumulative evidence, *pro* and *con.* the stability of the homœopathic law; and I repeat that I am not aware of any rumour to land us in the region of doubt and uncertainty in regard to the law itself. Difficulties might be experienced, and stubbornness of cases to succumb to treatment alluded to, but no hint is given that the law is inoperative. To India, Europe and other climes a like appeal might be made with similar negative response. But there is something beyond this mere tacit recognition of homœopathy as a mode of cure. Besides statistical evidence deduced from the comparative results of the practice of the old and new school showing a preponderance in favour of the latter, one cannot fail to perceive a growing tendency on the part of the old system to appropriate our remedies and to laud their effects in cases precisely similar to those in which our law requires that we should administer the same remedies. And to those who do not merely look at the surface of things, this *internal* evidence ought to have great weight—the truth of the law thus manifesting itself, in spite either of the actual want of a knowledge of it, or the affectation to disregard and ignore its existence.

I have already intimated my belief—not from any direct or searching investigation, for that is still needed, but chiefly upon the grounds of analogy—that the law of cure may become influenced by occasional causes operating detrimentally. Such opposing conditions have their source in certain powers or influences of universal nature, by which man, as a component part thereof, must be more or less affected according as they are manifested by and in him. In general, *cæteris paribus,* they act insensibly on his constitution; but there are times and places when and where we are made more sensible of their influence, when they preponderate in the scale over ordinary and more healthy conditions, and so come to exert injuriously their action in a more concentrated and intensified form. These physical influences long experienced observation enables us to describe under the general term of *exciting* and *remote* causes, when they are spoken of and applied to disease or abnormal states of the human body. Some are solar products—heat and cold, humidity and dryness, rareness and density of the atmosphere, as ascertained by the barometer and thermometer; winds and their direction; atmospheric electricity; degrees of latitude; miasms; lunar phases. Allied to the above are sudden and frequent changes of temperature, besides several other climatic circumstances determining the *genius loci;* such as the nature of the soil, marshy or dry; luxuriant or scanty vegetation; stagnant or running water. As not irrelevant to the subject, I include in this category of causes, moral and social influences; such as the way of living and occupation—the motory or sedentary life, and all causes of anxiety, as famine, depressed trade, failure of crops, and the calamities of war, hurricane, and earthquake; all of which contribute their quota of influence to affect man as a being subject to the vicissitudes of mortality.

A little reflection, therefore, leads us to recognise a close relation existing between the rule of action—our law of cure—and the vital action of the human organism; upon, and with which, the former operates, and is in correspondence. And the inference seems to me unavoidable, that whatever exerts its action on man's frame, be it physical or be it moral, must have a tendency to affect, more or less favourably or injuriously, the operation of the law of cure—favourably when they (the influences) are auxiliary to medical treatment—injuriously when they retard or seem to oppose remedial measures. Thus in consumption, I have found that a dry air—a north-easterly wind prevailing, for instance—generally operates disadvantageously upon the patient, while a humid atmosphere seems to have a more benign influence. Dr. Blest, of Nice, whose experience is entitled to respect, deplores, as an egregious and fatal mistake, the sending confirmed consumptive cases to that city. The dry atmosphere of the place, instead of benefiting such patients, most assuredly hastens their end. In corroboration of this opinion, I would mention that in Demerara, with a humid atmosphere, consumption is very rare—scarcely known; while in other parts of the West Indies, with dry air and exposure to N.E. trade winds, the disease is very common.

Shall we then deny that our law of cure is affected by certain opposing conditions? Certainly not. I admit it to a certain extent; but if this be used as an argument against its application to the treatment of disease, what shall be said of the "law of contraries," the "derivative" or "revulsive" methods, or of any other mode of action such as the old school adopts? Is it not notorious that they fail too—that they have signally failed, one after another, to such an extent as to bring the whole system of old school therapeutics into unenviable disrepute?—and not only so, but that these short-comings have been the *fons et origo* of those extemporaneous quacks and quackeries which disgrace medicine? Does immunity, then, from opposing conditions, climatic, atmospheric and other influences, entirely and universally attend the old school system, or even more so than it does ours? I opine not. Are they so perfect of themselves, that they bid defiance to epidemic diseases? The records of cholera and yellow fever do not so interpret for them as to favour and encourage such a notion.

I proceed to trace to its source the suppositious charge against homœopathy. As just admitted, there may be some grounds for it, however erroneous the conclusion arrived at; and the way I have attempted so far to dispose of the plea against our law of similars—namely, the imperfection of all laws in general, I think lays open a very interesting tract, not of fanciful, but of most legitimate and sober-minded inquiry, how far our law of cure is implicated by this imperfection, how it may be compensated, and how it now stands in comparison with the methods pursued by the old school—an inquiry leading to important information, and which I trust my colleagues, better placed than myself for obtaining results, will pursue.

Irrespective, then, of any animus provoking hostility against homœopathy, I imagine that the prejudices and evil report of the uninformed are founded on the difficulty experienced in combating endemic disorders whose essential character is well marked periodicity. I mean those intermittent fevers which are variously termed according to their habit—colony fever, marsh fever, chill and fever, ague and fever, &c. Circumstances warrant the belief that, like typhoid fevers, they vary in character with the locality—in other words, that each place has its own kind and degree of fever. However, differing in mildness or severity, some being more easy of control than others, they are everywhere regarded with dread; and it must be confessed that the treatment of these fevers, from the general obstinacy they exhibit, is comparatively our weakest point. I have almost always found that our school, wherever intermittents prevail, do not hesitate to acknowledge this, and unite in saying that "they are for the most part a troublesome class of disorders to deal with—that they sometimes baffle them as much as they do baffle their allopathic brethren—that to all appearances the latter frequently do as well, or even better, with them—that as to the results there is not much to choose on the part of the sufferers from these attacks between the *modus operandi* of either school." In short, I conclude that their treatment, in spite of the "sovereign" remedy Quinine, is, in some respects, a terrible opprobrium to both schools. Not that the difficulty arises from the inability of our school to cure them, even in their worst forms—the journals of our American brethren teem with such cases of cure—but from their not yielding so quickly in our hands as the *aborted* cases of the allopaths do. "You may be slow and sure," said a patient from Demerara to me when under a paroxysm of an untamed fever, "and your practice less liable to produce after evils, but you don't hit off the fever as our doctors sometimes do down with us." And so it is that this difficulty of "hitting off," even with its liability to dangerous or unpleasant sequelæ, is the very head and front of the offence, giving rise to all the whispers of distrust and reproach of homœopathy. Men will try to avoid present suffering, even at the risk of its suppression being attended with evil consequences.

If, then, my conjecture be just in attributing the various innuendoes against the system to the difficulties encountered in treating endemic fevers, is there anything further to be adduced in its behalf, or in extenuation of its assumed inefficiency? Is our loyalty to a noble cause to be damped by the allegation of its unreliableness as a means of cure, and is so grave a charge to be silently endured without a thorough sifting of the whole matter in question? In the absence of any direct investigation of its merits, let us regard the case as it at present stands.

An accomplished physician of the old school, in replying to my inquiries, for it is not a new subject of anxious consideration, assured me, as regards the treatment of the endemic intermittents of America, that any defined plan of medication was far from being universally-successful; and in evidence of this, he gave me to understand, that in the vicinity of Philadelphia he rarely if ever gave Quinine—that neither did he, or his colleagues, rely upon it as an efficient remedy in the fevers of that locality; and that they found Arsenic a better medicine. How are we to interpret this explanation, except as a failure of a vaunted specific, and consequently, up to the time of its having been tried and relinquished, that the school of which my friend was a member, had in his person suffered repulse from the fevers of the Delaware and the Schuylkill.

Of the West India colonies, many are well known to nourish endemic fevers, more or less, of an intractable kind. It is from these quarters, so far as I can glean, that the sentiments adverse to homœopathy emanate. But with the exception of Barbados, no other British colony, I speak under correction, rejoices in a homœopathic physician, although, judging from my correspondence, there are few places where homœopathy is not resorted to by amateurs. Here then, without any intended disparagement of the non-professionals in their efforts to do good, it is easy to see sources of distrust, for no one unacquainted with the character of these endemics can possibly form any just idea of their violence, or sufficiently appreciate the tact, the nice discrimination in giving medicines, and the self-reliance and patience which are demanded in treating them skilfully. If, then, the sufferers themselves, or their friendly attendants, get alarmed at the severity of the fever, and call in professional aid, and thus give occasion to invidious remarks, it need not excite our surprise that inferences injurious to homœopathy should occur. The negation therefore of the efficacy of homœopathy under such circumstances, is simply an absurdity, and the reasoning indulged in a sophism.

The island of Barbados being free from those aggravated forms of fever engendered elsewhere, there is no fair opportunity offering itself there to test the law of cure, and the efficiency of our remedies, by a comparison of the results of the two schools; but scores of patients come up yearly from various colonies with a view to the restoration of their health. Of these, I have had many falling to my share for treatment—as many as ten or twelve at one period—suffering, some from *unabated* fever, others from the cachexia, and other sequelæ of the disease. Those cases with recurring paroxysms, varying in regard to time, violence, and duration, yielded to homœopathic treatment; some much more readily than others. A few cases proved exceedingly obstinate, which I attributed to the hold the miasm had upon the constitution, and affecting internal organs, and thus keeping up and creating additional causes to influence and sustain the duration of the fever, which in these cases, in spite of the large doses of Quinine and other medicines previously exhibited, had *not* succumbed to allopathic treatment—a further and very significant testimony that allopathy no more than homœopathy is infallible. Of the colonies most notorious for aggravated forms of endemic fevers, particularly the intermittent, Demerara, Berbice, Tobago, and St. Lucia, send up the most patients to Barbados; and if there is a circumstance that speaks to the imperfection of medicine as an art, it is unmistakingly displayed in these sufferers from natural and drug diseases. Their cachetic, anæmic, and jaundiced looks—the enlarged liver and spleen—the swollen features, loose teeth, and Mercurial fœtor, and other sequelæ of an untamed and would-not-be-cured fever, and of drugging, give evident intimation "that something is rotten in the state of Denmark."

As far as I glean from patients who from time to time have come under my care, Calomel and Quinine are the remedies chiefly relied upon in the treatment of intermittent fever. With these, and under the allopathic system, I am informed that three results are attained—Firstly, The *aborting*, or suppression of the fever by large doses; secondly, When this fails to happen, a return of the paroxysms at certain periods of time, and the disease prolonged to an indefinite period, varying in point of duration from days to weeks, or even months, until recovery is accomplished; and lastly, Such persistence of the malady, with superinduced and dangerous symptoms—obstruction and engorgement of the abdominal viscera, dropsy and nervous disorders, for instance—as to necessitate the removal of the patient to some other locality or climate. What the proportions of cures is to the uncured does not transpire; but some peculiarities attendant on the fever of Demerara remain to be mentioned, and are worthy of consideration in a question like the present, which would court investigation into the nature of many circumstances connected with a true analysis of both modes of treatment. Thus there is the prevailing opinion among Demerara people that their fevers are influenced by the spring and neap tides, and that with susceptible fever patients the fever does not entirely cease, but disappears only to return at the spring tide, although at such return differently affecting in degree different persons—the recurrence in in some amounting to a mere *malaise*, while in others it is more sensibly and acutely felt. Again, I was informed by a clergyman from that colony, that persons in whom fever attacks are wont to be aborted or suppressed, not unfrequently die of apoplexy, or of brain affections, accompanied with convulsions, and become subject to determinations of blood to the head. In corroboration of this latter circumstance I narrate a case which subsequently occurrred in my own practice, and forcibly recalled the clergyman's observations. A strong healthy planter from Barbados was travelling in Demerara, on business which he had been commissioned to look after; *en route* up the Essequibo river, he was suddenly seized with a severe chill and fever, in the house of a friend. The physician who saw him administered a dose or doses of medicines, which he believed were Quinine and Calomel, and which so far suppressed the fever as to enable him to resume his journey on the following day. He felt the shock he had experienced, but there was no return of the attack during the remainder of his sojourn in Demerara—some eight or ten days; but no sooner had he got to his home in Barbados, than a violent attack, similar to the one in Demerara, occurred, accompanied with torturing pains in the head. When called to him, I found that he laboured under a severe form of tertian ague, accompanied with bilious vomiting and congestion of the head during the paroxysms. In the state of *apyrexia* there was great prostration, with a dull benumbing sensation of the brain, with tendency to stupor, which pain increased in violence when the paroxysm of fever returned, until he became delirious and almost frantic. Several severe paroxysms ensued, and were only moderated and finally subdued by frequent doses of Bryonia and Belladonna. The tertian still following up, without the urgent head symptoms, yielded at length to Arsenic, followed by decimal triturations of Quinine, cautiously given. The attack left him very weak, but sea-air and relaxation from his vocation as a planter, soon restored him to his former health, without any sequelæ. In this case, the germ of the disease arrested at first in its growth, seems to have remained for a while latent in the constitution of my patient, and then to have burst forth again in a very aggravated form, in which I professed to discover a metastatic action to the brain produced by the aborting plan of treatment. There likewise came to my knowledge another case, in which convulsions, terminating in death, occurred, after fever had been treated with large doses of Quinine; it was that of a young married lady, of delicate constitution, who visited Barbados for change of climate. A few days after her arrival a quotidian seized her, when having given such remedies as I thought necessary in her case without any sensible result, I administered Quinine every hour during the apyrexia—six grains of Quinine in all, intimately triturated with twenty grains of Sugar of Milk, and divided into twelve powders. The usual paroxysm did not return, and shortly after she went home in her usual state of health. A few months subsequently, I learnt that my patient had been again a sufferer from fever, in order to check which, large doses of Quinine were given, and that very shortly after convulsions without any assignable reason had suddenly ensued, and carried her off. Am I right in my supposition of attributing the brain affections in the above cases to the suppression of the fever; and furthermore, that by our system of treatment, all such and similar sequelæ are avoided?

Connected with the present inquiry comes an important question—Whether as comparatively an infant school we are in the position to supply every requirement of the law of cure with remedial agents specifically suited to the treatment of endemics so variable as these are in their nature? No longer than in the beginning of the present year a fatal form of dysentery developed itself in Port of Spain, Trinidad. Few escaped death who were attacked, and several valued lives fell victims to its malignancy. Besides, as in ordinary dysentery, constant urgency to go to stool, tenesmus, violent abdominal pains, and bloody and mucous discharges, it was characterised by profuse flows of fresh blood; great prostration and rapid sinking. The treatment by the allopathic school was very unsuccessful. While wondering if the disease would appear elsewhere and show itself in Barbados, a case fell into my hands. It was a young man in search of employment in Demerara. He left Port of Spain well, when just before reaching Barbados, in the mail steamer, he was seized with the disease. On his landing I was sent for. With him the flow of blood was not at any time very profuse, or serious; but the mixed blood and mucous discharge were incessant. Merc. Cor. alone, and afterwards, that and Colocynth alternately, except some mitigation of abdominal pains and tenesmus, made no impression on the disease; and when weakness manifested itself, they were changed for Arsenicum and Nux. It still persisted. A dose of Sulphur was administered, followed by a few doses of Colchicum; then Cantharis, the secretion of the urine having become almost suppressed. Some mitigation of the symptoms now took place. But there was no decided improvement which warranted the belief that the patient was out of danger, as some typhoid symptoms had manifested themselves. I decided to give Petroleum, and to this medicine a gradual and slow amendment succeeded, which ultimately ended in a tardy recovery. Here certain medicines failed which my experience had taught me hitherto to rely upon invariably in cases of dysentery. But why in this form of *colitis* did they fail? Could it have been due to some idiosyncrasy of the patient? Or, as I believe, were there elements in the endemic constitution of the disease itself, which these remedies hardly covered, or of which they were not the true analogues? The reader will see in this an obstacle to the law of similars—one which only time will remedy. He will see why it is that Quinine will not cure every intermittent—how it is that not Arsenic, nor Cedron, nor Cimex, nor Eupatorium, nor Cancilagua, are specifics, except so far as in their relations they are the true representatives of the endemic itself.

As an apologist on behalf of the principle of ubiquity which attaches to the law of similars, I have merely thrown together my own views of the matter. Believing that the subject demands a further and more searching investigation, as opening up a field for scrutiny into the relations which therapeutic agents have to diseases in general, and to endemic disorders in particular—thus leading to fresh discoveries of remedies more nearly allied to them severally—and as involving the vexed question of auxiliaries and potency of the dose, I look forward with the hope of its being taken up in all its bearings upon these topics, and upon the comparative merits of the treatment of intermittents by both schools of medicine, concerning which discordant opinions at present exist.

SIX MONTHS OF BRITISH ALLOPATHY.

Braithwaite's Restrospect of Medicine. Jan.—June, 1862.

Braithwaite's Retrospect is too well known and valued to need any general criticism. We take it only as the text-book for a resumé and criticism of the allopathic literature of the last half-year.

1. The first paper is by Dr. William Budd of Clifton. It examines carefully the common notion that typhoid or intestinal fever is usually originated by miasmatic causes. The conclu-

sions to which the author comes are, that this fever is as essentially specific and contagious as typhus or small-pox: that the doctrine of spontaneous generation is as untrue in reference to such specific diseases as it is in regard to the reproduction of living beings; that the contagion of typhoid fever is usually conveyed by the discharges from the diseased intestine, as that of diphtheria by the false membrane of the diseased throat; and that the best mode of prophylaxis consists in the addition of disinfectant fluids to the evacuations as soon as they are passed.

This paper of Dr. Budd's is but a sequel to numerous writings on the subject which he has published in the *Lancet* since 1856. His views have been lately adopted by Mr. Simon, the health-officer of the metropolis: as Braithwaite's second paper gives us to see. The facts and arguments he adduces are very forcible; and at least warrant the adoption of his prophylactic measure. This is simply to place two ounces of caustic solution of Chloride of zinc in the night-stool on each occasion before it is used by the fever-patient.

3. Dr. Gull contributes a paper upon Typhus Fever, which is chiefly interesting from the fact that, his treatment being purely expectant, we are able to study the natural history of the disease. He likens its course to an inverted curve, the patients becoming gradually worse up to a certain point, and then either dying or as gradually improving. The turning-point is usually reached on the fifteenth day of the illness. It would be interesting to show, from statistical data, how far this natural duration of the disease can be shortened by homœopathic treatment.

5. Dr. Chambers is giving a series of Clinical Lectures on what he calls the "Restorative" mode of treatment, as distinguished alike from the allopathic and the homœopathic. It may easily be conceived that his remedies are almost entirely dietetic or chemical. Thus, in the present article (on Continued Fever) he lays it down that we must restore the nitrogenized matter which the fever is wasting, and supply acid to neutralize the super-alkalinity of the blood, which Dr. Richardson has proved to exist in this disease. The food must be liquid:—beef tea, milk and lime-water, eggs beaten up in milk, &c., and

administered in small doses frequently repeated. Stimulants are rarely required. The acid he recommends is the Muriatic. He states, that under this treatment he has only lost one case of low fever in four years, and this one from perforating ulcer of the intestines. His treatment is undoubtedly a great improvement upon that ordinarily in vogue among allopathic practitioners, and there is even reason to believe that there is a something of a specific character about it. For Muriatic acid is of no little service in typhoid conditions of the system, administered in the homœopathic dilutions.

8. The last paper on Continued Fever is by Dr. George Johnson. He calls attention to the not unfrequent occurrence of renal congestion and inflammation, with albuminuria, during the progress of typhus and typhoid fevers. This may sometimes be the cause of the drowsiness and other cerebral symptoms which occur. He considered the complication very serious. To us, it affords another strong indication for the use of Arsenic in these fevers, by which the renal affection may be best averted and cured.

6, 7. In the sixth paper Dr. Cameron, Deputy Inspector General, tells us that nearly all tropical diseases present a periodic type, and that "Quinine is the master-key to their treatment." The author of the "Fallacies of the Faculty" will crow over this statement; but we should be strongly disposed to set it down as but another of those fallacies themselves. A companion paper shews the value of that component of Opium called "Narcotine" as an anti-periodic, which is considerable.

10. Dr. Marsden, of the Cancer Hospital, gives four cases of the treatment of cancer by the local application of Arsenic. He states that he has not seen a single instance of the disease returning in any of the cases thus treated.

13. Dr. McWilliam gives the first account of the sarracenia purpurea, or pitcher plant, considered by the North American Indians a specific for small-pox. Its action, as described, quite resembles that of our remedies, and it would probably repay some physiological experimentation.

14. Another of Dr. Chambers' interesting Clinical Lectures follows, the subject being anæmia. Under the usual treatment

by Iron, Aloes, and nourishing diet, he calculates that the patient under notice had manufactured twenty ounces of red blood-corpuscles in a month. He insists on the necessity of gradually rising to a full diet, and not forcing the repugnant appetite of the patient. "It is obvious," he says, "that if I had ordered ever so many 'ordinary diets,' a patient to whom the very sight of food was an abomination, would have gained nothing by it—she would simply have gone without. I directed therefore, no meals at all, and no solid food, but a cup of milk, with some lime water in it, to be given as medicine every two hours, and a pint of beef-tea in small, divided doses during the day. After two days she managed an egg also daily, and after twelve days of gradual additions of this sort, you will find her on full allowance of mutton-chop, porter, beef-tea, and milk." We are inclined to think that Homœopathy has yet much to learn as to the treatment of anæmia.

15, 16. Aniline is an artificial alkaloid, a constituent of indigo, and of the Oleum Animale of Dippel,—both known as nervine remedies. Dr. Turnbull was thus induced to try the Sulphate of Aniline in some obstinate cases of chorea, which had defied the usual remedies; and he gives six cases strikingly illustrative of its value. The nature of its curative operation soon emerges when we read his remarks on its physiological action. "In all the animals experimented upon, *violent clonic and tonic spasms* ensued after the application of the aniline, and continued almost uninterruptedly till death." The curative action of aniline in chorea, then, is but a fresh illustration of the law "similia similibus curantur." In the following paper, Dr. Fraser contributes five cases of chorea, in which the Sulphate of aniline failed in producing any improvement. His reason for employing it comes strangely from an allopath. "The theory for the employment of aniline in cases of chorea may be founded on this physiological fact, determined by experiments now being conducted by Dr. Letheby in the Laboratory of the London Hospital Medical College, that upon the administration of aniline to dogs, rabbits, &c., the functions of the brain proper are arrested, while those of the spinal marrow are highly exalted; as demonstrated by the extaordinary clonic spasms at the time when the animal is entirely deprived of ordinary sensation and voluntary muscular action: for example, a dog under the influence of ℨj of aniline will remain for three or four hours comatose, while the limbs are in a state of constant motion, as if in the act of running. Hence it might be inferred that the abnormal muscular movements in chorea may, by the action of the aniline, be averted, and give place to the normal voluntary movements."

17. Dr. O'Connor's cases of severe and long-lasting neuralgia, cured in a short time by the Valerianate of ammonia, are well worth reading. He gives it in the solution prepared by Bastick, and his smallest dose is equivalent to twenty grains of the salt.

18. Dr. Wilks recommends the Bromide and Iodide of potassium in epilepsy. The former is supposed to be an ovarian sedative; and the power of the latter over syphilis and lead-poisoning is well known. In epilepsy arising from such causes benefit may fairly be expected from these drugs. Cases are given illustrative of their action.

19. In the next paper, a case of epilepsy is recorded in which Arsenic was exhibited with effects so "sudden and remarkable," that the reporter is at a loss to account for the happy result of his empirical prescription. A reference to Christison on poisons would shew him that the power of Arsenic to cure epilepsy is dependent upon its tendency to cause it.

22. In a paper on "Regurgitant Aortic Disease of the Heart," Dr. Hyde Salter speaks in the highest terms of the value of Elaterium as a palliative in cardiac dropsy. Given in moderate doses, and accompanied by stimulants, it need cause no dangerous exhaustion; and "the results attained are among some of the most striking—I may say the most startling—triumphs of therapeutics. Floods of water are draughted away from the bowels, the dropsy vanishes, the breathing becomes unembarrassed, and the patient is restored, for a time to a condition of very tolerable comfort."

23. The following sentences from Dr. C. J. B. Williams' Lecture on Pneumonia are of interest to us. "There are certain poisons which, if introduced into the blood, produce pneumonia.

The bite of a rattlesnake has this consequence; the injection of Phosphorus into the veins; the slow absorption of Arsenic through a wound."

34. Mr. Bryant, in this article, tells us how easily and surely aphthæ and ulcers of the tongue may be cured by the Chlorate of Potash.

37. The same drug, in conjunction with Guiacum, is highly lauded by Dr. John West Walker as curative of diphtheria. He, however, attributes the efficacy of the compound to the Guiacum, which he considers a "specific" for all kinds of sore-throat. This Chlorate of potash is a very interesting drug, and deserves extensive physiological investigation. Its provings show it to be homœopathic to the affections of the mouth in which it is found of so much value.

38, 144. These two articles display in a forcible manner the gross empiricism and unscientific confusion of old school treatment in the instance of diarrhœa. This symptom, so varying in its import, is set down as a substantive disease, of uniform character, requiring uniform treatment. Dr. Andrew Clark tries "Sulphuric acid in contrast with chalk, Opium, Nitrate of silver, Copper, Bismuth, Lead, Pernitrate of iron, and others, singly and in combination;" and comes to the conclusion that the first named drug is a more rapidly efficient agent than any of them in the cure of diarrhœa. Seeing that it is thoroughly homœopathic to some forms of the disease, we might rejoice at his conclusion; but our satisfaction will be dashed when we read the form in which he gives it. This is as follows: "℞ Acid. sulph. Arom. ʒ xx; Tinct. camph. comp. ℈ i; Ætheris chlorici ʒ x; spirit. menthæ pip. ℈ ss; Syrupi rhœados ℈j; Decoct. Hæmatoxyli ad ʒ i." There are just eleven ingredients in this highly scientific prescription, of which some—as Opium, Logwood, Camphor, the aromatics—are themselves reported diarrhœic remedies. And yet because this draught—repeated every 4, 5, or 6 hours according to the urgency of the case—has succeeded in curing 74 per cent. of cases of diarrhœa within forty-eight hours, Sulphuric acid is concluded to be the remedy, *par excellence*, for this disorder. We, who know the power of *veratrum*, to say nothing of our other numerous remedies for diarrhœa, have no cause to envy our brethren in point of science or success.

45. The amusing accidental cure of albuminuria by Arsenic, contained in the 45th article, has already been extracted and commented upon in this *Journal.* The difference between the effects of the "suitable treatment" on which the patient was put on first entering the hospital, and that of the Arsenic afterwards exhibited, affords an admirable specimen of the contrast between allopathic and specific medication.

47. Dr. Pavy records some experiments to prove that the presence of an excess of acid in the system occasions the production of saccharine urine. It is curious that the acid he used in his experiments was the Phosphoric. It yet remains to be seen whether we have here a chemical or a dynamic effect of the acid: if the latter, the great efficacy of Phosphoric acid in diabetes is explained.

74. The Articles from 51 to 100 are upon Surgical matters, and many are extremely interesting. We would call especial attention to Mr. Hilton's cases illustrative of the value of rest in the treatment of diseased joints. The article whose number stands above (No. 74) is upon hæmorrhoids; and must convey to every humane mind a strong feeling of the barbarity of the measures practised for the cure of this affection. The knife, the ligature, and the application of strong Nitric acid appear to constitute in almost all cases the anti-hæmorrhoidal weapons of the old school. The homœopathic physician knows further that this treatment is as unnecessary as it is cruel,—the affection being nearly always within at least the palliative reach of drugs. *Nux* and *sulphur, hammamelis* and *aloes,* are his substitutes for the knife, the ligature, and the caustic, and humanity must declare the contrast in his favour.

86. This brief article contains a useful hint. We give it entire. "*How to relieve pain in a diseased bladder.* The presence of urine, and more particularly of calculi or concretions at the *bas fond* of a diseased bladder, sometimes produces violent pains in the bladder, and renders all movement painful. In such cases if the patient be placed on an inclined plane,

which, by raising the lower part of the pelvis, throws the contents of the bladder towards the upper and posterior part of the cavity (which is much less sensitive), relief is almost immediately produced, even though other means have been tried in vain."

94. The Biniodide of mercury is a very interesting substance. It appears capable of acting like either of its component elements. In syphilis and diphtheria its curative power undoubtedly resembles that of Mercury: and in the present article we learn that it is no less powerfully curative in goître than Iodine. It is used in the form of a strong ointment, locally applied.

105, 106. We still receive testimonies to the occasional value of Dr. Simpson's newly discovered remedy for the sickness of pregnancy, the Oxalate of cerium. It would be well to prove this substance, which would probably be found to be a specific emetic. Still more extensive testimony, however, is borne to the efficacy of Pepsine in this complaint. It is given in ten-grain doses, and probably acts dietetically rather than dynamically.

108. Dr. Simpson also instructs us upon a subject of which he is unquestionably the grand master — chloroformization. He has adopted a new method of administering the drug, of which he speaks in high terms as effecting a more rapid anæsthesia, and causing much saving in point of quantity. He lays one single layer of a towel or handkerchief over the patient's nose and mouth, taking care not to cover the eyes, and on this single fold the Chloroform is poured, drop by drop, until complete anæsthesia is induced. He states that "The first patient to whom he had administered it in this manner had been chloroformed several times previously, and had never gone to sleep till an ounce and a half or two ounces of the fluid had been employed; but when administered drop by drop on a single layer of a thin towel, one drachm had sufficed to induce the most profound sleep. "One precaution," he states, "must be attended to in employing Chloroform in this manner, viz., care should be taken to anoint the lips and nose of the patient beforehand with oil or ointment, to prevent the skin from being

injured by the contact of the fluid that resulted from the close application of the wetted towel to the patient's face."

127. If the barbarity of the old school treatment of hæmorrhoids has roused indignant comment, what shall we say when we come to the treatment of uterine ulcers. The worst horrors of Middle Age Surgery are outdone by the modern uterine cauterizers. The article here referred to will exhibit this fact as well as any. Five varieties of the uterine ulcer are named: the indolent, the inflamed, the fungous, the senile, and the diphtheritic; and the treatment is summarized as follows: For the indolent ulcer, "the caustic pencil for a few times; afterwards, several applications of solution of Nitrate of silver in strongest Nitric acid." For the inflamed ulcer, "occasional leeching; warm hip-baths; emollient injections. Then Acid nitrate of mercury several times, succeeded by the solid lunar caustic, Potassa fusa or cum calce." For the fungous ulcer, "at first the caustic pencil; subsequently, Nitric acid, solution of Nitrate of silver, or Acid nitrate of mercury; electric or actual cautery." For the senile ulcer, "Potassa fusa, or strong Nitric acid, with Nitrate of silver, once or twice, at long intervals. Then solid Sulphate of copper in a pencil." For the diphtheritic ulcer, "at first, electric cautery, Potassa cum calce, or Acid nitrate of mercury, two or three times, at long intervals. Subsequently, stimulant applications—tincture of Iodine or Sulphate of copper." Surely if homœopathy can do nothing else than rescue womankind from the tender mercies of such surgeons as this, it has deserved well of humanity.

We have now extracted from Braithwaite's Six Months' Compendium of Allopathic Progress such matter as will interest us as homœopaths, and such practical hints as we can avail ourselves of consistently with our principles. For more extended information we refer our readers to the volume itself.

REVIEWS.

Homœopathy in Venereal Diseases. By STEPHEN YELDHAM, M.R.C.S., &c. London: Turner. 1862.

A TREATISE on a class of diseases, by a practical man, who has drawn his conclusions from a large experience, and who has sufficient intelligence to constitute him a good and impartial observer, is a rarity in our homœopathic literature. While our editorial book-shelves groan under the weight of manuals of homœopathic practice, domestic and others, wherein the treatment of all the diseases of all the organs of the body is dogmatically laid down, the rarest phenomenon that meets our critical eye, is a good monograph of a given class of diseases by a practitioner of enlarged experience and tolerable observing powers. It seems strange that it is so much easier to write the manual treating of all diseases, than the monograph of one class of diseases, but it is evident that such is the fact, for many a practitioner of two or three years' experience in homœopathy will publish the former, whilst the latter seems to require a longer apprenticeship to medical practice. The reason seems to be, that in case of the manual, the author contents himself with copying from predecessors in the same line, occasionally doing a little bit of original symptomatic comparison—usually worthless—while no one would venture to do a monograph without some extensive experience of his own in the class of diseases treated of.

Mr. Yeldham is one of our homœopathic writers, whose works have generally the stamp of practical experience about them. The present work is unmistakeably the production of a practical man. It is short and pithy. There is not much of the bookmaker's craft about it. The diseases are briefly described; the directions for treatment are succinct and summary. There is no desire on the author's part to show how well he is up in our Materia Medica, or how diligently he has read the

Symptomen-Codex, by giving a long list of remedies for each form of disease, which, for the most part, serves but to show that the author knows little practically about the matter. On the contrary, Mr. Yeldham recommends very few remedies for each disease; but he is careful to give very distinct indications for the use of those he advises to be given. If anything, perhaps, Mr. Yeldham's Materia Medica is rather scanty, and probably some of the diseases he treats of would require something more than the two or three specifics he recommends. But we would, we confess, rather have this poverty of the practical man than the embarrassing riches of the mere manual-maker; the former shows, at least, that the author has cured cases with the remedies he vaunts, the latter rather indicates that the author knows his diseases and remedies from books only. Mr. Yeldham seems to be aware that exception might be taken to the meagreness of his pharmacopœia, as by way of conforming to the prejudices of those who desire a more extensive array of medicaments he generally throws in, in a contemptuous sort of by-the-way manner, a list of the names of other remedies that " may also, under particular circumstances, be employed with advantage."

Gonorrhœa, a disease often treated—but seldom cured—with contempt, is the first affection of importance Mr. Yeldham mentions. His treatment is a combination of internal remedies and injections. For the earlier stages he advises *acon.*, *merc. cor.*, and *canth.;* for the later stages, *cann.* and *thuj.* He has, he says, seldom found it necessary to travel beyond these remedies. The injections he employs are a weak solution of the Acetate of Lead; half a drachm of the *liq. plumb.* to an ounce of distilled water, and an infusion of *hydrastis* in the proportion of an ounce of the drug to a pint of water. The periods when the injections are to be used, are in the first twenty-four or forty-eight hours of the disease, when there is merely slight itching and some mucous discharge, before the acute or inflammatory symptoms have developed themselves; and in the later periods of the disease, after the inflammatory symptoms have subsided, and when the disease is sensibly on the wane.

Injections in gonorrhœa have been objected by many homœopathic writers, as contrary to the fundamental principle of homœopathy, but practical men who have during the year many cases of gonorrhœa to treat, know that injections often afford much assistance in the removal of the disease, and, if carefully employed, are never injurious. Mr. Yeldham contends for the homœopathicity of those he uses; but in that view we cannot join him. Gonorrhœa is, in many cases, such a purely local disease, that the mere application of an astringent to the secreting surface suffices to remove it. But in most cases the astringent injection is only an adjunct to the specific treatment, and is no more homœopathic to the disease than the suspensory bandage is to the swelled testicle, or the elastic stocking to the varicose leg. It is absurd to object to the employment of a remedy that practice has proved useful, because it may not be capable of being brought under the category of homœopathic agents. We are physicians, bound to do the best for our patients, before we are homœopathists, and we are not justified in prolonging the malady of a patient one day in order to carry out our notions of purity of practice, provided we can diminish by an equal period our patient's disease, without injury to himself, by departing from this fanciful standard of purity. Our own experience fully bears out Mr. Yeldham, when he alleges that gonorrhœa may be materially shortened by injection, and we should not feel justified in refusing them to any patient for whom we believed them indicated. Many cases of gonorrhœa may certainly be cured by *cann.*, *canth.*, *merc.*, or *petrosel.*, without local treatment; but many others resist these and other internal medicines, and will only yield to injections. Besides the injections to which Mr. Yeldham refers, we have found benefit from weak solutions of *nitrate of silver*, of *sulphate of zinc*, of *chloride of zinc*, and even of green and black tea.

Mr. Yeldham asserts that *cannabis* to be of any use in gonorrhœa, must be given in palpable doses. He prescribes 5, 10, or 15 drops of the tincture three or four times a day. Our own experience bears out Mr. Yeldham's views, and we have long since ceased to prescribe *cannabis* in any but material doses.

A very obstinate form of gonorrhœa is omitted in Mr. Yeldham's work. It is that which originates without any specific venereal infection, where the patient has had no intercourse except with his virtuous wife. Some authorities suppose it to be owing to intercourse being carried on during the menstrual flux, but our own observations and inquiries incline us to believe that some women become temporarily capable of communicating a virulent blennorrhagia to their husbands, in consequence of a morbid alteration of their usual mucous secretions caused by some depressing mental emotion. How far this view is correct, it would require a large amount of experience to show; but however it may be, certain it is that this accident which occasionally happens in the best regulated ménage, is generally of a very obstinate character, and resists the usual internal remedies most provokingly, only yielding to injections and general hygienic measures.

Another, but less obstinate form of gonorrhœa, we have occasionally seen occur after the introduction of a bougie for the dilatation of a stricture. This form is best cured by Cantharis and warm bathing.

Mr. Yeldham's observations on gleet are of an equally practical character. Thè remedies he recommends are *canth.*, *merc.* (in the form of *cinnabar*) *nux vom.*, *puls* , and *sulph.* In debilitated constitutions he gives *tinct. ferri sesquichlorid.* in 10 drop doses, three times a day. Injections, he contends, are most necessary in gleets.

A form of gleet he omits to allude to, is that often observed in gouty subjects. This kind, we believe, is not to be cured by injections, at least we have never ventured to prescribe them, but we have generally removed them in a reasonable time by the internal administration of *nitric acid.*

Among the complications of gonorrhœa, orchitis is one of the most important. Mr. Yeldham says *acon.* and *puls.* rarely fail to afford speedy relief, and he has seldom found it necessary to resort to any other remedies. We cannot say that our experience altogether bears out that of Mr. Yeldham, and we should be disposed to attribute a higher remedial efficacy to *clematis* and *arnica* in orchitis than to the medicines he prefers. In one chronic case of swelled testicle of very long standing, we obtained the best results from *spongia;* but in this case the disease was not originally induced by gonorrhœa.

We are less pleased with the chapter on *stricture,* in Mr. Yeldham's work, than with that on gonorrhœa. Stricture, whether under homœopathic or allopathic treatment, assisted by the mechanical means common to both schools, is often an incurable complaint. Though temporary relief is generally obtained by the use of bougies, the tendency of the disease is too often to relapse. But it does not appear from Mr. Yeldham's observations to be at all difficult of cure. There is altogether too much of the *veni-vidi-vici* sort of style in what our author says about it to please us. "I have had under care," he says, "cases of this disease which had existed for years, notwithstanding the regular use of the bougie, which, with the use of that instrument for a few times, when at the same time appropriate homœopathic medicines were given, have got completely and permanently well." This may be so, and if it be, we can only say that Mr. Yeldham has been more fortunate than most of his surgical brethren; but still even he must have met with cases that did not yield in this miraculous manner to his remedies, and we think it would have been but right to mention that some strictures, do what you will for them, dilate them so that they will allow the largest sized bougie to pass easily, will relapse again and again, to the despair of the patient and the confusion of the surgeon.

Mr. Yeldham gives a series of cases, twenty in number, illustrative of his treatment of gonorrhœa with its complications, including orchitis, gleet, and stricture. These cases are well though briefly written, and the results are such as we should be happy to attain in every case of the sort; but, alas! we fear that Mr. Yeldham's cases, like those of most writers, are the cream of those he has treated, and probably he could have furnished, as we all could furnish, some cases that did not yield so rapidly to his skill. But we suppose we must be content to regard them, and similar cases, as we do specimens in a museum, not as common things to be met with every day, but as model samples of their kind. We are particularly struck by the excellent effects the author met in some of these cases from the injection of an infusion of ***hydrastis*** in gonorrhœa and gleet. He makes this infusion with one ounce of the root to half a pint of water.

In the treatment of *primary syphilis* Mr. Yeldham's favourite remedy is the *merc. sol.*, and the dose he gives is two or three grains of the 1st or 2nd decimal trituration three times a day. He justly condemns the large doses of Mercury given by the allopathic school, and his own doses are equally far removed from the infinitesimals of the ultra-Hahnemannists. We confess to a partiality for the more material preparations of Mercury in this disease, and indeed have rarely seen any curative effect on the primary chancre from the administration of the higher dilutions. The material character of the syphilitic virus seems almost to demand a material administration of the medicinal antidote.

The observations and practice of Hahnemann in respect to syphilis, in the earlier period of his career, have scarcely met with so much attention as they deserve. Though in the last edition of the *Materia Medica Pura*, he recommends Mercury to be given for syphilis, as for every disease in which it was indicated, in the dose of a single globule of the 30th dilution, yet we know that up to 1816, at all events, his practice in syphilis was very different. In that year he published an essay* in which he tells us, that for the deeply rooted syphilis, the soluble Mercury must be given to such an extent as to develope some of its peculiar physiological symptoms. What these symptoms are he does not say, he only gives a list of what they are not; but we believe we are justified in assuming that they are the same as those he described in his first work, "On Venereal Diseases," † to which we must refer the reader. In that same work, ‡ published, be it remembered, in 1789, he states that the quantity of soluble Mercury required to develope these symptoms sometimes did not exceed one grain, whilst at other times as much as sixty grains were necessary. Though we do not now think that Hahnemann was right in alleging that sixty grains of Mercury are requisite to cure syphilis, still we must admit that different cases require different quantities; and hence we cannot agree with him in his later opinion, that one globule of the 30th dilution suffices for every case. The practice of our best practitioners, among whom we do not hesitate to reckon Mr. Yeldham, more nearly assimilates to the earlier than the later practice of Hahnemann, and will, we think, be found more successful than the latter, or even than the transcendental treatment of the new-light or high-dilution homœopathists represented by Wolf, Bönninghausen, and others.

---

* *Lesser Writings*, p. 728. † *Ib.*, p. 77. ‡ *Ib.*, p. 162.

Nitric acid is another remedy Mr. Yeldham considers indispensable in the treatment of syphilis. He says it cannot be considered to be a substitute for Mercury as many of the allopaths contend, but it is applicable to quite a different form of the disease. Whilst Mercury is useful in *hard* chancres, Nitric Acid is to be given in soft chancres in persons of debilitated constitution, whether the result of scrofula, of the previous abuse of Mercury, or of a former venereal taint. The two remedies, given alternately, will often be found more efficacious than either singly. The doses of Nitric Acid he gives are five to ten drops of the 2nd decimal dilution.

Not having the fear of the purists before his eyes, he advises certain local applications to the chancre. His favourite is a weak lotion of Calendula, and when that cannot conveniently be obtained, the common black wash; but Calendula is to be preferred. Lunar Caustic, too, is, he says, sometimes useful for stimulating sluggish ulcers.

We have not space to give an account of what Mr. Yeldham says regarding the treatment of secondary and tertiary syphilis, but we may only observe, that his observations seem very just and his treatment is decided, and if we may judge by the cases he gives, highly successful.

We observe that Mr. Yeldham does not treat of sycosis as a distinct form of venereal disease different from syphilis, as Hahnemann believed, but he includes warts among the symptoms of syphilis proper. Whether this is correct theoretically we shall not take upon us to decide, but practically there seems to be little use in separating the two, as warts seldom occur without the simultaneous or antecedent occurrence of syphilitic symptoms.

In the treatment of syphilitic iritis Mr. Yeldham practises the dropping in of a solution of *atropine*, and this, in many cases, is of most absolute necessity if we wish to preserve the integrity of the pupil; but it is a precaution which is too generally neglected by homœopathic practitioners.

In conclusion, we would express our hearty thanks to Mr. Yeldham for his valuable little work, which, though small, contains a vast deal of sound practical instruction, and it is a book which might with profit be consulted by all young, and many old practitioners of homœopathy.

Infanticide: its Law, Prevalence, Prevention and History. By William Burke Ryan, M.D. (Lond.), F.R.C.S., &c. London: Churchill, 1862.

It was lately stated in the public papers that 1,104 coroner's inquests were held on the bodies of children under two years of age in London, or rather in the metropolitan districts, during the past year, and the statistics of several years shew that this is the average number of such inquests. The *Lancet* gives us the following analysis of the verdicts in these cases.

Verdicts:

Wilful murder	66
Manslaughter	5
Found dead	141
Suffocation: how caused unknown	131
" accidental	147
From neglect, want, cold, or exposure and natural disease	614
Total	1104

How many of those under the five last heads might have justly been ranked under the first, it is of course impossible to say, but the general belief of coroners and others is that at least one half of such cases have been actually murdered, and that as many more children, on whom no inquests are held, meet their death by foul means. We may therefore, without exaggeration, assume that on an average about 1000 cases of infanticide occur annually in our metropolis.

A nation educated from youth upward to regard Herod's massacre of the innocents as one of the most horrible of crimes, could not be expected to view with indifference the dreadful slaughter of infants going on in its midst—but yet it is surprising how little horror is excited among us by the daily occurrence of infanticides. Juries seldom return verdicts of "wilful murder" against the unhappy perpetrators of the crime, and when they do, and the sentence of death is pronounced, it is never carried into effect, as it is always felt that great allowance must be made for the miserable mother who is usually the criminal.

Moreover, the law on the subject of infanticide is, that no murder has been committed unless the child was fully born, and as it is in most cases impossible to ascertain whether death ensued on the passage of the infant from the mother or afterwards, as the delivery usually takes place in secret, juries will always give the prisoner the benefit of the doubt and acquit her of the greater crime, merely finding her guilty of the lesser offence of concealment of birth.

The remedy for the awful destruction of infant life that has been repeatedly proposed, viz., the establishment of foundling hospitals in sufficient numbers, is too generally believed to be provocative of inchastity to be likely to be adopted, for it is a remarkable peculiarity of the English people that they would rather suffer the scandal of a great amount of secret crime, than have their moral sense outraged by seeming to encourage a more venial immorality by the public avowal of its existence. Another illustration of this peculiarity is our mode of treating the "social evil." While we will not suffer the public recognition of prostitution by putting it under legal control, we make strenuous private efforts to diminish the evil by Magdalen Asylums and Midnight Meetings, the effect of which is merely to remove a few of the existing courtezans, and thereby make room for the immediate admission of new candidates, without producing the slightest effect on the actual numbers of the body.

Evidently an increased severity of punishment for infanticide will not diminish the evil, for at the present moment the legal punishment is as severe as it can be, the crime being murder and the penalty death. The only effect of this severity is that juries will not convict of the capital offence when they can possibly avoid it. Were the penalty for the crime less, and were the absurdity of requiring proof of the child being fully born abrogated, convictions might be oftener obtained. But we doubt very much if even an increased certainty of punishment would deter from the commission of the crime in the majority of cases. On the poor sensitive shrinking girl, who dreads exposure, the risk of the possible legal punishment for the concealment of her shame is as nothing compared to the fear of her shame being known to those about her. When to this fear is added the suppressed agony of parturition, who can tell what desperate resolves are capable of being carried into execution by the unhappy girl. The stifling of her half born babe will seem but a trifle to her who has through long hours stifled her own groans and shrieks. The torture she has silently suffered would have been suffered in vain, were the infant to betray its presence by a cry, so the wretched mother clutches at the throat of the infant for whom she has never felt in anticipation the joys of maternity, but whom she has always regarded with horror and apprehension as the possible cause of her disgrace.

That this is the history of many a child-murder is corroborated by the following words from M. Schoetzer's official report to the Belgian Council of State: "I discovered," he says, "that the crime of infanticide was not committed on children who had lived a few days; that as soon as any woman had experienced the pleasures of being a mother, she no longer thought of attempting the life of her child; that this barbarous act was committed only during the first moments of the woman's embarrassment, and while she was still struggling between the feeling of shame and natural affection; and lastly, that the life of the child was safe whenever the mother was sure that the fact of her having been delivered was known to a second or third person."*

While infanticides at the moment of birth are generally of the kind just described, there is yet a large number of child-murders that are less excusable. Infants are made away with by their unnatural mothers because they are troublesome to rear, because they cost more than the mother can afford, or because their death is a source of gain to avaricious parents who have insured their lives in one or more burial clubs. In these cases, however, the crime is not committed at the moment of birth, and is consequently of a much more revolting and inexcusable character than the first described class of infanticides. In these cases the crime usually betrays a great amount of depravity, selfishness or avarice being the chief motive to its commission; whereas in the first mentioned cases, the motive is usually a sense of shame, a desire to keep up the appearance of respectability, feelings laudable enough in themselves, but which we here see are capable, like many other good qualities when carried to an extreme length, of prompting to evil and unnatural deeds. Greater certainty of punishment following detection of the crime would not exercise any influence over the infanticides of the shame-stricken erring girl, for it is the exposure of her secret, not the punishment of her crime that she dreads, and the motive for secrecy would remain as powerful as ever. Greater certainty of punishment might, and we think would diminish considerably those more revolting infanticides caused by avarice and laziness; but still there are hundreds of ways of getting rid of children, without actually resorting to what the law would recognise as murder—such as neglect, insufficient food, improper medicine, and harsh treatment, which no legislation could altogether prevent. Something might be done by way of neutralizing the sinister incentives to child-murder afforded by the burial clubs. If, for instance, these clubs were not allowed to give money on the death of the insured child, but to provide a certain class of burial, as their name implies, the great inducement to make away with the child would be done away with. It is well known that parents will insure one child in several clubs, and a child so insured has but small chance of fair play.

---

* Quoted in *B. & F. Med. Rev.* April, 1842.

With regard to the sad cases of infanticide caused by dread of exposure, no increased severity will, as we have already said, avail to prevent them. Something must be done to diminish the infamy and disgrace with which a prudish society visits the unfortunate girl who has been guilty of the sin of yielding to the solicitatious of illicit passion.

It is all fustian to declaim against the hard-heartedness of society towards an erring sister, and to advise a less harsh treatment of one who is perhaps more sinned against than sinning. The fact is, that society in these matters is under the despotism of the prudes and hypocrites, and such is their power that none dare show kindness or sympathy for the girl that has gone astray, unless she wail out her sorrows in harmonious notes, under the Italian title of *Traviata*. It is then, but a waste of time to appeal to the kindly and humane feelings of society. Society is not influenced by any such feelings, nor yet by justice, in the punishment it metes out to its offenders. The man, generally the greater culprit of the two, scarcely loses anything of its consideration; the woman loses everything she holds dear—good name, position, intercourse with her fellows. Society places the girl who has once loved, not wisely, but too well, on the same level with her who deliberately embraces prostitution as a profession. It is sad that it should be so, but so it is, and we cannot help it.

Far different must be the appeal made to society in order to induce it to check the frightful evil of infanticide. Here is an ever increasing catalogue of infanticide—can we remain indifferent to it? If not, what is the remedy? Evidently the largest number of infanticides is caused, 1st, by the difficulty a girl who has become pregnant has of being delivered without great scandal among all her acquaintances; and 2nd, By the difficulty of disposing of the child.

A girl, we shall suppose in the rank of life of our domestic servants, finds herself pregnant. By means of a firm will, and aided by the present preposterous style of female dress, she is able to go to the full time without perhaps exciting the suspicions of her employers or fellow-servants; but there is no place where she can be confined, without exposing her weakness to a large number of persons who have no hesitation in ruining her character and prospects by telling every one of her misfortune. Her means will perhaps not admit of her engaging private lodgings, and the services of a nurse and doctor, and she knows that such a mode of delivery ensures no exemption from exposure. She may claim the asylum of the workhouse during her trial, but the obstacles thrown in the way of every one who seeks admission to those institutions, the supercilious insolence of the master, and the searching inquiries of the guardians would of themselves deter any sensitive girl from undergoing the ordeal of an admission to a workhouse; and moreover, the reputation of workhouse treatment is of itself sufficient to deter every self-respecting woman from entering one if she can possibly avoid doing so. One or two of the London lying-in charities admit unmarried women, but the number of beds in these establishments is so small, and the difficulties of admission so great, that but an infinitesimal proportion of cases of the kind we are speaking of can be accommodated; and even here there is no guarantee against publicity and exposure. The poor girl is thus induced to conceal her delivery, as she has hitherto concealed her pregnancy; and in the lonely attic she resolutely suppresses the rising scream of agony, and unassisted she passes through the dreadful ordeal, and endeavours to efface all traces of her suffering and her crime at a period when her more fortunate sisters, who need not to exercise concealment, are ministered to by nurses and friends, and gently compelled to refrain from all exertion and movement. The sufferings endured, the resolution exercised, the presence of mind displayed would, in different circumstances, be highly praiseworthy; but alas! all these great qualities are here employed to break the law which renders concealment of birth criminal, and, ah woe! that same will which has stifled her own moans, has likewise prevented the new-born babe from betraying its wretched mother by a cry.

If we would prevent such tragedies, the frequency of which is a national disgrace, we must provide a sufficient number of lying-in hospitals, as different as possible from our workhouses, where poor girls—and why not rich ones too?—may receive that help so needful to them during their trial, without running the risk of exposure and publicity. It is objected to lying-in hospitals of the character described, that they would increase immorality; but supposing they did so (which, however, the facts show they do not), the choice would then lie between a little immorality and a great deal of crime; for by refusing to assist forlorn and forsaken girls in their extremity, we force them to commit unnatural crimes. The dread of shame, and the desire to preserve one's respectability, are commendable, but as things are at present, we force upon poor girls the fearful alternative of social degradation or child-murder.

We shall be told that the girl who has so far forgotten herself as to yield to the solicitations of an illicit love, must and should stand the consequences, which are the just indignation of outraged society. But stop a little!—is the indignation then so just? The more active culprit, the man, escapes all this indignation and its consequences, while the more passive sinner, the woman, receives it entire, and her one fault is visited with the greatest and the most disproportioned punishment society can inflict.

In France, in Germany, in Italy, and in other countries for aught we know, there are lying-in hospitals to which pregnant women are readily admitted, and no questions asked, so that they may preserve their *incognita* if they choose. We have no time to go into details concerning the management of these lying-in hospitals, all that we at present wish to direct attention to is the necessity for these establishments, if we wish to prevent the infanticides that now disgrace us.

As essential as lying-in hospitals are foundling hospitals, conducted on a liberal scale, and easily accessible to all. Without resorting to the extreme measure of having *tours* attached to these foundling hospitals, into which any one can put a child with the certainty of its being well taken care of, the admissions to these hospitals should be so easy as not to deter the shrinking, shame-faced mother from having recourse to them.

In fact, we would confer the *right* to such admission, where it could be shown that the mother was not in a position to take proper care of her infant.

Poor girls earning a scanty subsistence by their daily toil, and domestic servants, are evidently not able to pursue their avocations and take charge of a child at the same time. What they usually do is to place the child out to nurse, at a cost of three or four shillings a week, to which the father may or may not contribute, as the case may be—often he cannot be made to assist—especially since the new legislation, which requires corroborative evidence of the paternity, has come into force. If, then, the whole burden of the infant's support is thrown on the mother, it is evident that, in many cases, she cannot afford to pay for its support. The inducement to make away with a child in such cases is strong and often irresistible, and an infant perishes for want of an asylum in which to place it. Again, the wife of a daily labourer dies in child-bed, the father must be out all day to earn his livelihood—what is to become of his infant? More children are born to a poor couple than they can support. In these and similar cases, the inducement to infanticide, if not by violence, at all events by neglect, withholding proper nourishment, administering improper food or physic, is great, and will not be resisted in many cases. Foundling hospitals would save the destined victims.

Foundling hospitals should be in connection with the Lying-in hospitals spoken of. At present, if a girl is delivered of an illegitimate child in the workhouse, as soon as ever she is able to stir, she is thrust forth from the inhospitable building with her child in her arms. The poor girl has perhaps no money; she could earn a livelihood by her needle or by going into service if she had not the child; she must starve—both must starve, if she keeps it; she wanders about forlorn, irresolute—the canal, the sewer, or the river offer a ready means of getting rid of her burden; half maddened with hunger, desolation, and despair, she casts the helpless infant from her, and perhaps quiets her conscience with the reflection that her little babe is better in heaven—whither, the superstition that stands to her in the stead of religion leads her to believe, it will immediately pass

—than growing up in misery and vice. The foundling hospital in connection with the lying-in hospital would prevent this unnatural crime.

The objection so often urged against foundling hospitals, that they would be productive of immorality and increase the number of illegitimate births, is not justified by statistics. Thus it is shown by Gerando, that while France, Naples and Austria, which have foundling hospitals, have a proportion of illegitimate to legitimate births of 71, 46, and 42 per 1000 respectively, the following is the proportion among States that have no hospitals:—Prussia, 69; England and Wales, 55; Wales alone, 83; Saxony, 121; and Hesse, 149 per 1000 births; while puritan, sabbatarian, and whiskey-drinking Scotland, without the aid of foundling hospitals, shows in its different counties a proportion of illegitimate births from 61 as the lowest up to 157, 162, 171, and 175 per 1000 births!

It is not for the writer to enter into details as to how these foundling and lying-in hospitals are to be constituted and conducted. The corresponding institutions of Paris, Vienna, and Rome might be studied with advantage and profit by those whose business it would be to establish them.

And whose business should it be to furnish us with lying-in and foundling hospitals?* We think that the genius of our institutions would render it necessary that they should be under the control of the Boards of Guardians of the Poor, and subject to the general direction and surveillance of the Central Poor Law Board; but an Act of Parliament would be required to initiate them. Some active and influential member of Parliament, on the outlook for an interesting hobby to ride in the house, might profitably take up this subject of infanticide and its remedy, and thereby do a world of good to humanity, besides ensuring his own immortal fame.

---

* It may be objected that there is already a Foundling Hospital in London. There is an institution bearing that name no doubt, but though it spends a vast annual income, it is so hampered by absurd regulations, that it is not of the slightest use to those who most need a Foundling Hospital, and it has not the slightest atom of influence in preventing the crime of infanticide. The purpose of its benevolent founder, Captain Coram, is utterly frustrated by the mode in which it is now conducted.

The length to which our remarks have extended forbid us to say much about Dr. Ryan's book. And, indeed, there is not much to be said about it. It is written in a style we abhor. There is no method or order in it. A large portion of it is borrowed from an article that appeared in the *British and Foreign Medical Review* for 1842, and the chief statistics of the book are those of that ancient essay. The author repeats the same facts over and over again in wearisome iteration. The remedies proposed for infanticide, with the exception of the establishment of foundling hopitals, are absurd and cruel, and would be totally inoperative.

One passage only redeems his book from the charge of absolute dulness, and that is an attack upon homœopathy, at page 169. Apropos of the temptations to medical men to produce abortion, he thus pours forth his withering denunciation of homœopathy.

"Quackery in all times has existed, and has flourished, as in England, where the people are willing dupes. But in all cases has the profession kept aloof, and even warned the deluded people of the risk they ran; and, indeed, great has been the risk up to this last, and most impudent, and untenable imposture—the homœopathic delusion. Had that delusion anything in it, the lie would be given to all previous history, and to all previous efforts of the human mind. The labours of ages must go for nothing; and the experience handed down from generation to generation, to be improved upon as time goes on, is utterly worthless. All philosophical theories of progress must be thrown to the winds; and Bacon, with the inductive sciences, must be ignored as worse than useless; for they only lure us to the loss of time which might be better employed. For is not here Hahnemann and his disciples, who have absolutely sprung to perfection, without trouble and without study, in an art that has taken century after century of hard working, high-minded and honourable men, in an endeavour to bring—and unsuccessfully to bring, up to the present—to something like perfection. But there is no danger for the divine art of healing; and this last quackery, which promised to be so gigantic an error, has already collapsed. Having nothing of vitality in it—being simply the 'baseless fabric of a vision'—its impending destruction will leave no wreck behind. Belying their professions by their acts, the disciples of this new creed—if creed it can be called—have long been known, in cases of real disease and where great danger threatened, to pitch their globules to the winds, and to fly to those good 'allopathic' remedies which stood the test of time," and so forth, in a continuous stream of execrable grammar and wretched twaddle.

The reader will be pleased to hear that the profession has always kept aloof from quackery, and especially from that most impudent and untenable imposture, homœopathy. Without being obliged to consider homœopathy an imposture, he may hitherto have been under the delusion that its practitioners were recruited from the ranks of the profession. The pleasure of the reader will be enhanced when he learns that if there is anything in homœopathy, all previous history and all previous efforts of the human mind are merely lies. Perhaps he was not formerly aware that the authenticity of Heroditus, Tacitus, Gibbon, Hume and Macaulay depended on the nullity of homœopathy, so that the announcement of this great fact will come upon him with all the charm of a surprise. Perhaps he was under the delusion that the labours of Aristotle, Newton, Locke, Leibnitz and Kant were independent of the truth or falsity of homœopathy; he is undeceived by Dr. Ryan. Bacon and the inductive sciences must be ignored as worse than useless, if an infinitesimal dose of *aconite* cures an inflammation, and yet Bacon was no friend to the traditional physic of his time, which he abused as unphilosophical and defective, pointing out that the only way in which medicine could advance towards anything like certainty was by searching for specifics,* which is in fact the main object of homœopathy.

The reader will not fail to observe that "Hahnemann and his disciples" are not honoured with a plural verb, and that "they absolutely sprung to perfection without trouble and study." We were not aware that we had "absolutely sprung to perfection," as Dr. Ryan eloquently expresses it, but of course we are glad to hear it from such a disinterested witness;

---

* Advancement of Learning, Book iv. chap. 3.

still we do not imagine this testimony to our perfection will make us relax our endeavours to improve the practice of our art just as though we had not quite attained to absolute perfection. Some little trouble and study it certainly cost Hahnemann to bring his system up to the present point, otherwise we should scarcely have the testimony of his high-minded opponents, such as Hufeland and Sir J. Forbes, that he was a man of great learning and indefatigable industry; but we suppose Dr. Ryan speaks comparatively, and means that the trouble and study required by Hahnemann in order to bring his system to perfection were as nothing compared with what Dr. Ryan has gone through in order to attain to the grammatical perfection he displays in this work. Apparently the system practised by Hahnemann and his disciples has not fared so well as its practitioners, for while they "have absolutely sprung to perfection," their system "has already collapsed," and has been found to be but the "baseless fabric of a vision," that leaves "no *wreck* behind." We do not exactly see how the practitioners can have attained to absolute perfection amid the collapse of their practice, but it is none of our business to discover sense in Dr. Ryan's maunderings. In fact, we have already dwelt too long on this paltry exhibition of venomous spite against the homœopathic system and its practitioners, the former much above the comprehension of a man of Dr. Ryan's mental calibre, the latter not the least injured by this miserable explosion of silly abuse.

MISCELLANEOUS.

Report of the Committee appointed by the Royal Medical and Chirurgical Society, to investigate the subject of Suspended Animation.

The inquiry was conducted,—

By means of experiments upon living animals;

By means of experiments upon the dead human body.

In investigating anew the subjest of apnœa by means of experiments on the lower animals, it seemed expedient to observe, in the first place, the principal phenomena of apnœa in its least complicated form—namely, when produced by simply depriving the animal of air.

The principal facts to which attention was directed during the progress of the apnœa thus induced were—

The duration of the respiratory movements;

The duration of the heart's action.

The duration of the heart's action was observed—

(*a*) In relation to the duration of the respiratory movements.

(*b*) In relation to the time after the stoppage of the breathing.

From the experiments performed it appeared that in the dog the average duration of the respiratory movements after the animal has been deprived of air is 4 min. 5 sec., the extremes being 3 min. 30 sec. and 4 min. 40 sec. The average duration of the heart's action is 7 min. 11 sec., the extremes being 6 min. 40 sec. and 7 min. 45 sec.

From these experiments it appears that on an average the heart's action continues for 3 min. 15 sec. after the animal has ceased to make respiratory efforts, the extremes being 2 min. and 4 min. respectively.

Rabbits, on an average, ceased to make respiratory efforts in 3 min. 25 sec. Their heart's action stopped in 7 min. 10 sec.; consequently, the interval between the last respiratory effort and the cessation of the heart's action was 3 min. 45 sec.

The next question investigated was—the period after the simple deprivation of air at which recovery is possible, under natural circumstances, without the aid of any artificial means of resuscitation.

The experiments performed led to the conclusion that a dog may be deprived of air during 3 min. 50 sec., and afterwards recover without the application of artificial means; that a dog is not likely to recover, if left to itself, after having been deprived of air during 4 min. 10 sec.

The force of the inspiratory efforts during apnœa was observed in the experiments to be so great that it was determined to measure them. They were found to be capable, in the dog, of raising a column of mercury four inches. It appeared, moreover, that their force increases up to a certain period.

In other experiments, Plaster-of-Paris, and even Mercury, were thus drawn upwards into the minute bronchial tubes.

It is easy to understand, therefore, how foreign bodies may be drawn into the lungs in cases of drowning, and the importance of this fact in the consideration of the pathology and treatment of apnœa.

The Committee next passed on to the subject of drowning.

The first question investigated was—For what period can an animal be submerged, and yet recover without the aid of artificial means?

It was found as the result of numerous experiments on dogs that in striking contrast to the previous ones, 1½ minutes immersion in water suffices to destroy life.

Other experiments satisfactorily showed that the difference of time between simple apnœa and that by drowning is not due to submersion, or to depression of temperature, or to struggling, but that it is connected with the fact, that in the one case a free passage of air out of the lungs, and of water into them, is permitted; in the other, the exit of air and the entrance of water are prevented.

There can be no doubt, from other considerations put forward, that although both these circumstances are concerned in producing the difference observed, yet that it is mainly due to the entrance of water, and the effects thereby produced.

The treatment of apnœa was next considered.

For conclusions respecting artificial respiration, the Committee refer to the second portion of the Report.

Many other methods of resuscitation which have been recommended were employed, including actual cautery, venesection, cold splash, alternate application of hot and cold water, galvanism, puncture of the diaphragm.

Although some of the above means were occasionally of manifest advantage, no one was of such unequivocal efficacy in a sufficient number of cases as to warrant the Committee in specially recommending its adoption.

The experiments upon the dead subject were made with a view to determine the value of the various methods which have been employed for alternately compressing and expanding the cavity of the chest in such a manner as to imitate the natural movements of the thoracic walls in breathing. The following methods have been investigated:—

1. Pressure exerted by the hands on the anterior wall of the thorax, the body being in the prone posture. Such pressure has for its object, to expel a portion of the air contained in the chest; on relaxing the pressure, the chest expands and air enters.

2. The postural, or so-called "ready" method, described by Dr. Marshal Hall, which consists essentially in "turning the body

gently on the side and a little beyond, and then briskly on the face alternately;" and in making pressure along the back of the chest each time the body is brought into the prone position.

3. The method of Dr. Silvester, in which the action of the pectoral and other muscles passing from the shoulders to the parietes of the chest in deep inspiration is imitated. An inspiratory effort is produced by extending the arms upwards by the sides of the head; on restoring them to their original position by the side of the body, the expanded walls are allowed to resume their previous state and expiration takes place, the quantity of air expelled being in proportion to that which had been previously inspired.

It being necessary to measure the flow of air in and out of the respiratory cavity under conditions of pressure closely resembling those which exist in natural respiration, no means of measurement could be used, which, in its working would offer any appreciable resistance to the passage of air. With this consideration in view, an instrument designed by Dr. Sanderson was employed. (The instrument was exhibited to the Society.)

GENERAL RESULTS.

1. As regards the volume of air which can be expelled from the thorax by compression of its walls, and inspired by the elastic expansion, consequent on relaxation of the pressure, it was found—

(*a*) That pressure by both hands on the lower third of the sternum in the adult male subject usually displaced from 8 to 10 inches of air.

The pressure actually exerted amounted to about 30 lbs. It was, therefore, not greater than might be safely applied to the living subject. The volume of air expelled varied from 8 cubic inches to 15 cubic inches.

(*b*) That pressure made in the same manner on the upper part of the sternum usually displaced 2 or 3 cubic inches less than pressure on the lower part.

(*c*) That pressure exerted by one hand on the upper part, by the other on the lower part of the sternum, produced about the same results as were observed in *a*.

In this case the whole amount of pressure did not exceed that exerted in *a*.

(*d*) That the pressure of a weight laid on the lower third of the sternum produced similar results according to its amount.

(*e*) That lateral pressure exerted on the ribs or costal cartilages of both sides simultaneously, was, in no instance, more effectual.

(*f*) That compression by a broad bandage encircling the chest the ends of which were crossed over the sternum, and drawn in opposite directions by two persons, produced no greater effect than pressure with the hands on the sternum or sides.

2. As regards the whole amount of exchange of air produced by the method of Dr. Marshall Hall, "to imitate respiration," it varied much according as the subject was favourable, or the contrary; sometimes not exceeding a few cubic inches, but never exceeding 15 cubic inches.

3. As regards Dr. Silvester's method, it was found that, on extending the arms upwards, a volume of air was inspired into the chest, which varied in different subjects from 9 to 44 cubic inches, and it was observed that the results obtained in successful experiments on the same body were remarkably uniform, in which respect, as well as in their amount, they contrasted with those obtained by the method of Dr. M. Hall. On restoring the arms to the side, the quantity of air expelled was generally nearly equal to that previously inspired. Occasionally less.

In the treatment of apnœa generally, the Committee offer the following suggestions:—

That all obstruction to the passage of air to and from the lungs be at once, so far as is practicable, removed; that the mouth and nostrils, for example, be cleansed from all foreign matters or adhering mucus.

That in the absence of natural respiration, artificial respiration by Dr. Silvester's plan be forthwith employed in the following manner:—The body being laid on its back (either on a flat surface, or, better, on a plane inclined a little from the feet upwards,) a firm cushion or some similar support should be placed under the shoulders, the head being kept on a line with the trunk. The tongue should be drawn forward so as to project a little from the side of the mouth. Then the arms should be drawn upwards until they nearly meet above the head (the operator grasping them just above the elbows), and then at once lowered and replaced at the side. This should be immediately followed by moderate pressure with both hands upon the lower part of the sternum. This process is to be repeated twelve or fourteen times in the minute.

That if no natural respiratory efforts supervene a dash of hot water (120 deg. Fahr.) or cold water be employed, for the purpose of exciting respiratory efforts.

That the temperature of the body be maintained by friction, warm blankets, the warm bath, &c.

In the case of drowning, in addition to the foregoing suggestions, the following plan may be in the first instance practised:—Place the body with the face downwards, and hanging a little over the edge of a table, shutter, or board, raised to an angle of about thirty degrees, so that the head may be lower than the feet. Open the mouth and draw the tongue forward. Keep the body in this posture for a few seconds, or a little longer if fluid escapes. The escape of fluid may be assisted by pressing once or twice upon the back.

(Signed) C. J. B. WILLIAMS, *Chairman.*
W. S. KIRKES.
GEORGE HARLEY.
J. B. SANDERSON.
C. E. BROWN-SEQUARD.
H. HYDE-SALTER.
E. H. SIEVEKING, *ex officio.*
WM. S. SAVORY, *Hon. Secretary.*

On the motion of Dr. Edward Smith, the resolution of the Council appointing the Committee was read.

Dr. C. J. B. WILLIAMS said, the Committee, having to consider the subject of "Suspended Animation," directed their enquiries to that kind of interference with life which results from stoppage of the breath in suffocation, strangulation, and drowning. The first series of experiments was to investigate the result of simple apnœa, or stoppage of the breath; and for this purpose the trachea of animals was opened, and a tube inserted so as to command the supply of air; and this tube being furnished with a stop-cock could be closed, and the results noted, especially these:—After the closure of the tube, 1, how long respiratory efforts continue; 2, how long the heart's action continues; 3, how long the heart beats after the breathing efforts cease. The experiments show a considerable variety of result; but, as a general average, it may be stated that in dogs efforts at breathing continued a few seconds more than four minutes after the closure of the tube; and the heart's action three minutes and a quarter longer. The duration and force of these respiratory efforts in an animal deprived of air, were not more remarkable than important, as indicating the period within which an animal deprived of air could recover; and this was found to be almost, but not quite, as long as the duration of these efforts—that is to say, a dog deprived of air four minutes only, would recover; but if the exclusion of air lasted ten seconds longer, he did not recover. The extraordinary force of these struggles for breath was shown by plunging the end of the tube into mercury, when it was found that the inspiratory effort sometimes raised a column of four inches of mercury, and, if the tube was shorter, would draw the quicksilver in considerable quantities into the bronchial tubes and air-cells of the lungs. The next subject of investigation was suspended animation from drowning; and here the experimenters soon found a remarkable difference in the greater rapidity of the death, and the shorter time during which life is recoverable. An animal simply deprived of air for four minutes may recover; but one immersed in water for one minute and a half is irrecoverably dead. Recovery took place in several cases where the immersion lasted one minute and fifteen seconds; but fifteen seconds more made all the difference. The experimenters proceeded to search into the cause of this peculiarly destructive operation of drowning, as compared with simple privation of air; and very soon they were enabled to trace it to the action of the water itself, forcibly drawn into the lungs by the respiratory struggles of the animal. Two dogs were plunged into water, one having its trachea closed by a stop-cock at the moment of immersion. The dog with the trachea free was taken out in two minutes, irrecoverably dead. The other, with the trachea closed, was taken out at the end of four minutes; the trachea was opened, and in the course of a few seconds the animal began to gasp, and soon recovered. Another mode of diminishing the inspiratory struggles of the animal was by stupifying it with chloroform before immersion in water, and it was actually found that recovery took place after two minutes and fifteen seconds' immersion. On this point he (Dr. Williams) adverted to a popular opinion, that it is more difficult to drown a drunken man than one who is sober, as having some foundation on this fact, that insensibility of any kind retards the fatal influence of drowning, by diminishing those violent struggles for breath which, by forcing water into the lungs, soon put the case beyond recovery. But nothing so fully pointed out the extent and nature of the fatal influence of water in the lungs as the appearance of these organs in drowned animals as compared with those killed by simple apnœa. In the latter, the air-passages remained free from all secretion or effusion, and the lungs themselves were light and buoyant, and contained remarkably little blood. Now this is contrary to what is generally described as the state of the lungs in asphyxia; and probably in ordinary cases, where death is not sudden, but prolonged, more or less engorgement may take place. But here there was no engorgement or obstruction, and it was not wonderful that animals would recover more readily. But with drowned animals, not only were all the air-passages choked with frothy fluid, and that fluid generally more or less bloody, but the whole lungs were always highly engorged with blood, so that they were heavy, dark-coloured, pitted on pressure, and on being cut exuded an abundance of blood-tinged fluid with many air-bubbles in it. On this subject he would make two remarks on his own responsibility, apart from his office in the Committee. One was—How opposed these observations and conclusions are to those many years ago propounded by Goodwyn in his treatise on suspended Animation, whose opinions have generally been adopted to the present time. Goodwyn concluded from his observations, that water never to a hurtful extent enters the lungs of the drowned, and he deprecated the popular practice of hanging up a drowned person by the heels to let the water run out. He (Dr. Williams) was by no means sure that, as Dr. Goodwyn was certainly wrong in his pathology, some modification of the popular practice may not be beneficial. The other remark related to the mode in which the water which got into the lungs of the drowned proved so rapidly and extensively injurious. No doubt much was due to its mechanical pressure on the tubes and cells, forming an impervious barrier to the readmission of air; but this would not account for the extraordinary increase of blood in the lung, and its transudation into the air-tubes. He believed the injurious influence of water to be due to its chemical power of acting by endosmosis on the blood within the capillaries of the lungs, swelling up and bursting the blood-corpuscles, and causing their rapid accumulation in the organ, and their extravasation into the bronchial tubes. This was a subject for further experimental investigation, and he thought it one of great importance, as bearing on the action of water as a noxious or a therapeutic agent. He would not detail the various means of resuscitation which were tried by the Committee, but the results of the trials were not such as to induce the Committee to recommend them strongly for general adoption. Various instructive experiments were made on different modes of performing artificial respiration, and the most conclusive of these had reference to the so-called "ready methods" of Dr. Marshall Hall and Dr. Silvester. One of their Committee (Dr. Sanderson) contrived the apparatus on the table for measuring the air which could be forced out of it into the lungs of a dead body by these methods of artificial respiration; and the general result was, that by Dr. Hall's method the quantity of air moved in and out of the lungs rarely reached nine cubic inches, and never exceeded fifteen; whereas by Dr. Silvester's plan an interchange of forty cubic inches was effected; and when this method was further improved by alternating the drawing up of the arms with depressing them, and with pressure on the lower part of the sternum, the expelled air was as much as fifty cubic inches. So far, then, as these experiments go, they show a great superiority of Dr. Silvester's over Dr. Marshall Hall's "ready method."

Dr. EDWARD SMITH adverted to the importance of the quantity of bloody water found in the lungs of the dogs drowned, and explained that the water would be introduced from the bronchi into the blood-vessels by endosmosis, and these would cause the swelling and bursting of the blood-corpuscles after the circulation had been greatly retarded or arrested, and would also cause rupture of the capillaries, or the attenuated blood would pass through the walls by exosmosis, and thus appear in the bronchi. He did not think that the experiments upon the action of chloroform in deferring the fatal issue were conclusive, since they were too few, and the increased duration of life very small, and it had not been shown that a narcotised animal might not have greater tolerance of apnœa independent of the idea which the Committee had—the diminution of muscular effort. The matter of greatest interest in the Report was the comparison of the Marshall Hall and Silvester methods, and he (Dr. Smith) thought that both might be equally advantageous in the cases in question. The experiments have shown that, with the lungs full, there was greater change of air with the Silvester method. The Marshall Hall method started from the point of expiration, but living persons could by their effort expire forty cubic inches below that point, and if, by external pressure on the inanimate, one-half of that quantity could be displaced, it would probably suffice for the purpose in hand. The Silvester method, by enlarging the cavity of the chest above the line of expiration, must cause greater displacement of air; but it had been shown by the Report, that in a case of phthisis, where the lung capacity was greatly reduced, the effect of the two methods was precisely the same. Such would also probably be the case with drowned persons, in whom the lungs were full of water, which offered a great obstacle to the introduction of air; and in this condition the Committee had not made any experiments. It was in reference to the practical object in the appointment of the Committee that the Report failed. The Committee had not proved that any one of their inquiries was applicable to the drowned human subject. The time during which a man could be immersed in water and recover could not be proved by experiments on dogs, and the Committee themselves had shown that all their plans for the restoration of drowned dogs had failed. The Committee had, in one part of the Report, disclaimed any intention to say how far the Silvester method was fitted for the restoration of the drowned; and yet in their recommendations they advise the use of this method almost exclusively, without having in any experiment tried it, under these conditions. The recommendation to place the body prone, and allow fluid to run out of the mouth, was an old recommendation; but they had inferred, and not proved, its value, and that only from experiments on drowned dogs which they could not resuscitate. The experiments on dogs had shown that neither cold nor hot water alone had any value as restorative agents, but that the alternation of the two was somewhat useful; but this alternation had not been recommended for man. Hence he (Dr. Smith) regarded this Report as but the commencement of the inquiry, a labour which had elicited important facts fitted to be employed in further researches; but as to the great object had in view in the appointment of the Committee—the scientific determination of the best method for restoring drowned men—he thought that it had altogether failed.

Dr. Webster said that he thought the Silvester method was the best, and that the recommendation was very important. He was sorry to hear that the lives of so many dogs had been sacrificed in the experiments. He hoped that in future, if possible, experiments on living animals would be avoided.

Dr. Marcet agreed with Dr. Edward Smith, inasmuch as, from the method of investigation adopted by the Committee, he felt assured of the correctness of their results. He was, however, sorry that so little consideration had been given to the instrumental

rec
exp
res
so-
On
the
the
an
of
ar
ch
w
w
s
f
1

means of performing artificial respiration, which he believed to be of the greatest importance in a practical point of view because, in his opinion, a much larger quantity of air was required to inflate the lungs in suspended animation than the Silvester or the Marshall Hall method could possibly effect. It was to be borne in mind that in cases of asphyxia or of poisoning by chloroform, poisonous gases accumulated in the blood; and the object of artificial respiration was to remove this poison and excite the action of the heart. He (Dr. Marcet) contended that in order to obtain a sufficient amount of diffusion to allow of poisonous gases to escape from the blood and the lungs, it was necessary that these organs should be inflated with as much, or nearly as much air as they could contain, and this no ready method was capable of doing, as the volume of air required would be from 130 to 200 cubic inches. He believed that the instruments for performing artificial respiration should not be set aside on the ground that they cannot be had and applied quick enough when wanted, and proposed that surgeons and hospitals should provide themselves with some apparatus of acknowledged efficiency for inflating the lungs. In hospitals there would be no difficulty in carrying out this plan, so as to have in readiness a means of restoring animation in cases of accidents with chloroform. Dr. Marcet then alluded to the instrument he had exhibited to the Society on the 11th February last. He said he had obtained most satisfactory results when using it to restore animation in cases of dogs poisoned with chloroform, and that in these experiments he had been able to avoid performing tracheotomy for the purpose of inserting a canula into the trachea, which greatly added to the interest of the results. He had no doubt that this very simple instrument would prove most available in cases of suspended animation in the human individual, and concluded by observing that the instrument used by the Committee in their inquiries was one he had invented and described in 1854; it was not nearly so practical as that exhibited lately to the Society.

Mr. Charles Hunter said, that as he was one of those gentlemen who six years ago conducted the experiments upon the dead body for Dr. Marshall Hall, upon which experiments the "Ready Method" was established, he felt called upon for a few words in its defence. He regretted that the Committee thought fit to condemn it, and observed, that if the Marshall Hall method after all was a failure, the long series of experiments carefully made by him (Mr. Hunter) with others must go for nothing; and yet the original experiments were much more numerous than those made by this Committee, and perfectly conclusive in their general results to those who made and saw them. They were, moreover, backed by astonishing evidence in its favour from medical men in all parts of the kingdom—testifying to its success in actual cases of drowning. In reply to Dr. Harley, he said the Silvester plan was tried a few times, but without success equal to that obtained by the "Ready Method." He would correct the idea that only ten cubic inches were obtained in the experiments—it was much more, and, in favourable cases, varied between twenty-five and thirty-five cubic inches, and sometimes forty inches. Mr. Hunter was glad to find his own experience on the lungs of drowned animals, as described by him in the *Lancet*, were corroborated by the Committee; he was also glad to hear that they did recommend the pronation of the body as the first measure in cases of drowning—it was the essential part of the Marshall Hall treatment. The special advantages of the pronation are that fluids escape from the mouth, throat, and lungs, and the tongue dropping forward leaves the glottis free during inspiration. He was sorry, then, to find that the Committee recommend the Silvester plan. He could imagine no plan so rational as the Marshall Hall method for a case of drowning. The experiments of the Committee prove that water is drawn forcibly into the lungs in drowning, and that that water hastens death; how necessary, therefore, a method of recovery that will get rid of the water! The Committee objected to the Marshall Hall method that the expiratory act precedes the inspiratory. Mr. Hunter considered it a physiological advantage, as by first inducing expiration much of the fluid is got rid of that has entered the lungs, as well as the bad air, which it is as important to get rid of as to introduce good air. He observed that frequently in his experiments artificial respiration could not be effected in the supine position, but could by pronolateral movements. He considered that in drowning cases pronation of the body should be continued some length of time, as fluid can be expelled from the lungs of a drowned individual for half an hour by the Marshall Hall method. He inquired if the Committee meant to recommend the continuous warm bath or not, as they had recorded no experiments in the Report. His own observations, he considered, proved it to be a most prejudicial measure, impeding respiratory action, and excluding the prone and postural movements.

Mr. **Acton** was sorry to hear that the opposition to the Report was more to its details than to the Report itself. He thought that the members of the Society should consider that the Committee had come forward for the first time, and that, as in the Academy of Medicine at Paris, they ought to be received with laudation. Members of the Society should not come forward, each with his own particular views, to attack the Report; and, instead of dwelling on its shortcomings, they ought to receive the labour of the Committee thankfully.

Dr. **Kidd** considered that artificial respiration would be valuable in restoring persons from the effects of an overdose of chloroform. He had seen cases in which pressure on the chest seemed to restore life.

Dr. C. J. B. **Williams** said that the experiments detailed in the Report had been made with great care, and the methods of Dr. Marshall Hall and Dr. Silvester had been fully compared. He thought that the Committee had done wisely in not recommending instruments, but what they considered to be the readiest plan under all circumstances.—*Medical Circular*, July 16, 1862.

Rennnet Wine.

By George Ellis, M.B., F.R.C.S.I.

That a supply of good gastric juice to the stomach, after its reception of food, is indispensable for healthy gastric digestion, is a truth that needs but little comment. Defect in quality of this fluid may be considered one of the most frequent starting points, often overlooked as such, of many diseases which surely, though it may be slowly, undermine the constitution and shorten life. Few of us are entirely exempt from some of the immediate consequences of unhealthiness in this secretion. Acid eructations, gastralgia, thirst, foul tongue, vertigo, headache, and nausea, are, under the name of dyspepsia, among the commonest affections treated by medical men in themselves and others; and the consciousness of the want of some substitute or corrective, better than any of our present Pharmacopœia can offer, has led to the very extensive trial of a costly preparation, still prescribed pretty largely, under the supposition that it contains the active principle of the gastric juice. Of this preparation, called pepsine, I can only say that, having tried it more than once, I have failed to detect its utility. It will not coagulate milk, and as to any digestive action on the food, I suspect there are few practitioners who, though continuing to prescribe it, do not feel inclined, from their own experience, to question its efficacy.

About two years since, failing to obtain benefit from this new remedy, I had recourse to the direct preparation of a solution of gastric juice from the calf's stomach; and I have found the result so gratifying, its effect in gastric derangements so satisfactory and remarkable, both in my own hands and in those of several medical friends to whom I recommended it, that I wish to communicate to the profession, more extensively, the following mode of preparation which, after many trials, appears to me to be the simplest and most convenient for general prescribing purposes. Take the stomach, or rennet bag, as it is called, of a calf *fresh* from the butcher; cut off about three inches of the upper or cardiac extremity, which portion, as it contains fewer glandular follicles, may be thrown away; slit up the stomach longitudinally; wipe it gently with a dry napkin, taking care to remove as little of the clean mucus as possible; then cut it into small pieces (the smaller the better), and put all into a common wine bottle; fill up the bottle with good sherry, and let it remain corked for three weeks. At the end of this time it is fit for use.

Dose.—One teaspoonful in a wineglassful of water immediately after meals.

Test of Quality.—One teaspoonful will solidify, to the consistency of blanc mange, in from one or two minutes, a cup of milk (about eight ounces) at the temperature of 100 deg. Fahr.

In this action on the casein of the milk, it may be said that the wine itself might have some effect. This, however, cannot be the case, as wine will not solidify milk, and it will only curdle it at a much higher temperature and in larger proportion.

This preparation, which I propose to call "rennet wine," has many advantages over the watery infusion of rennet which is obtained from the dried and salted calf's stomach (used largely in cheese-making). The objections to the latter are, that it is much more troublesome to prepare, and becomes very soon spoiled in warm weather, when it begins to react on the animal matter contained in it. Rennet wine, on the contrary, is so easily made, requiring no drying or salting of the stomach, is so inexpensive, and can be so easily prescribed in private and hospital practice, that I have little doubt if known and tried it would become a very highly valued remedial article in the hands of the profession, and would take a permanent place on the shelves of the apothecary.

I recommend the employment of good sherry, because this wine has sufficient body to keep the infusion sound for any length of time, and is not so strong in alcohol as to interfere with its power of taking up the active principle of the rennet.

To the physiologist it is unnecessary to say that it should be given *after* or *during*, and not before meals. A single dose given daily after dinner will be found quite sufficient to act speedily and effectively, without other treatment, in the common run of cases of functional disorder of the stomach. It is not, perhaps, easy to explain the operation of this small quantity when we consider the large supply of the gastric secretion required for the thorough digestion of an ordinary meal. The action is probably due to those indirect chemical changes called catalytic transformations, which some organic substances, by their mere presence and contact induce in each other and in other proximate principles. Thus the conversion of a small portion of food in the stomach into healthy albuminose by this small quantity of sound gastric juice may induce the same healthy action throughout the stomach's contents during the entire process of stomach digestion. It is at least equally difficult to explain the action and rapid extension of ferments generally in their appropriate solutions. I have often been forcibly struck by the magical effect of this small dose in removing offensive odour from the breath of young persons—a distressing symptom sometimes aggravated rather than relieved by purgative medicine; and I may also mention that in one of these cases cod-liver oil was easily tolerated afterwards though never before.

It would be a mistake, however, to suppose that oil is at all acted on by the gastric juice. The oil globules of coagulated milk are seen under the microscope, unchanged, though imbedded in the solidified casein, the digestion of oil being entirely intestinal. But intestinal digestion itself must surely be influenced essentially by the healthy preparatory action of the stomach secretion on the albuminous compounds presented to it, and thus the digestion of oils and fatty matters, though not commenced in the stomach, will be indirectly facilitated by their being mingled with the products of the healthy gastric operation, when submitted subsequently to the action of the pancreas and liver.

It is unnecessary, however, at present, to theorize further on the subject. My object is to bring to the notice of the profession, and have subjected to the test of larger experience, a preparation which in my very limited sphere I have found extremely serviceable; and as I believe there is no class in society more liable to suffer from gastric disturbance, often long-continued, with wasting and debility, than members of our own profession, through worry of mind and body, with irregular hours for meals and sleep, I would earnestly suggest their, at least experimental, adoption of this remedy, at once so simple, so little costly, and which is no trifling recommendation, so perfectly innocuous.—*Dublin Medical Press.*

The Medical Circular on Modern Therapeutics.

There is a general notion that we moderns infinitely surpass our ancestors in the arts of life; and Medical men in particular are prone to congratulate themselves upon the great advances which the practice of medicine has made during this nineteenth century. In illustration of the barbarous ignorance of our predecessors, some erudite archæologist will occasionally reproduce for the satisfaction of the curious, a prescription written by Dr. Caius, or Revirius, or perhaps, even his own great grandfather, who pottered away his time and industry among his simples and mineral oxides in some remote country village a hundred years ago.

We have all of us seen such prescriptions, including some dozen or twenty different articles, which have been dried and boiled and squeezed and macerated, and in numberless other ways subjected to thaumaturgical processes by which their marvellous virtues have been extracted, so as to be made operative on the peccant humours of the animal frame. We laugh and think ourselves much more sensible men than our grandfathers. We prescribe, now-a-days, in a far simpler manner. Three or four drugs in one prescription are quite sufficient to satisfy our ingenuity and cure our patients. Pathology is better understood, chemistry has revealed to us its many wonders, the correlations of forces is a new discovery. Though we despise homœopathy from the bottom of our soul, we still believe in occult influences, and look forward with hope to the grand climacteric of Medical science, when the laws of the conservation or conversion of forces being well understood, we shall be able to replace loss of heat in aged persons with a suitable dose of electricity, and re-excite motion in a clot of blood by the aid of a rarefied sunbeam, In our progress to this happy state of therapeutical perfection, we content ourselves with prescriptions of a very simple character. We abide strictly by the adjuvants, corrigents, and dirigents of Dr. Paris, and are satisfied with the results. Let us ask if there may not be a little delusion in the matter? Are our prescriptions really so simple as they appear? Have we any right to laugh in such a self-satisfied way at the elaborate combinations of our forefathers?

Here is a prescription:—

℞ Tinct. cinchon. co.	ʒj.
Sp. ammon. arom.	ʒss.
Aq. Anethi	ad ℥iss.

ft. haust.

Few modern prescriptions are simpler than the *foregoing; it* contains but three pharmacopœial preparations, is reasonable in its design, and would in all probability prove efficacious. Does the reader know how many simple articles contribute to form this very simple prescription? Does he know further the actual *quantities* of the separate articles entering into it? If he do not, we will try to enlighten him—begging, however, beforehand, that we *may be* excused from solving the difficult arithmetical problem of the quantities. We do not profess such a mastership of the subject.

An old pharmaceutist—say the venerable Huxham—would have written the prescription in this ridiculous manner:—

℞ Rad. cinchon. (Flav.)	q.s.
Cort. aurant	q.s.
Rad. serpentar.	q.s.
Croci stigmat.	q.s.
Cocci	q.s.
Sp. vin. rect.	q.s.
Aq. destill.	q.s.

Macera &c., &c., et cola &c. Deinde.

℞ Amm. hydrochlorat.	q.s.
Potas. carb.	q.s.
Cort. cinnam.	q.s.
Caryophill.	q.s.
Cort. limon.	q.s.
Sp. vin. rect.	q.s.
Aq. destill.	q.s.

Misce et destill., &c. Deinde.

℞ Sem. Anethi	q.s.
Aq.	q.s.

M. et destill. Denique misce omnia pro haustu.

The last part of the prescription might have been varied by ordering the oil of dill and a little powdered flint.

This is the anatomy of the corpus of our simple prescription. We see that it is just as elaborate and minute as the most pedantic old pharmacologist could desire. Here are combined in one prescription, cinchona, serpentary, orange-peel, lemon-peel, saffron, cochineal, cinnamon, cloves, dill-seed, hydrochlorate of ammonia, carbonate of potass, spirits of wine, and water. It would be very easy to write a prescription, not over long, that should contain twice as many simple ingredients; in fact, the wholesale druggists now do the work which was formerly done by the apothecary himself in his laboratory.

We have given the details of these magistral preparations, not with any intention of dissuading our readers from employing them, because in the present state of therapeutics they are almost indispensable; but to show that our present habits of prescribing, as sanctioned by the highest authority, originate rather in a reliance upon the experience of others than in a personal observation of the action of individual drugs. We have been nurtured in an artificial system. We are the slaves of the manufacturing druggists, and our science is subordinated to a trade. Can we not alter this practice and adopt a greater simplicity in prescribing? After Dr. Parkes and Dr. Bennett have proved to us that pneumonia may be successfully treated by the mildest means, have we not a solid argument for recommending a closer attention to the action of separate drugs? Is it not very probable that three-fourths of the ingredients in the prescription we have just given are either superfluous or of no real use? There is no drug in more constant employment than ammonia; yet to this hour its operation in the animal economy is only vaguely apprehended. It is thought to be "good for the stomach," to relieve spasms, or revive from syncope; but apart from its properties as a "nervine," what is generally known of its action? How does it affect the blood? Is it a cure for scarlet fever, and for certain cutaneous diseases as stated by some authors?

It is unnecessary to dilate upon this subject. It has frequently occupied our attention in these columns, and the general tendency of our arguments must be well understood. We desire to know the specific qualities of drugs, and these can never be ascertained with precision whilst one drug is given in combination with a dozen others either resembling or differing from it in action. For this reason we hope that the Committee of Therapeutics appointed by the British Medical Association will receive the assistance of our readers, so that an ample body of evidence may be collected for future guidance. *Med. Circ.*, leading article, Sept. 3, 1862.

[Decidedly the editor is in a hopeful way, and we would earnestly recommend him to pursue the subject further, and to read Hahnemann's Essay entitled, "Are the obstacles to Certainty and Simplicity in Practical Medicine insurmountable?" *Lesser Writings*, p. 359.—Ed.]

Archbishop Whately on Medical Trades' Unions.

The Archbishop of Dublin has written the subjoined reply to a letter from a London physician, enquiring whether His Grace was aware that the College of Surgeons in Dublin had passed the following "ordinances," viz.—"That no Fellow or Licentiate of the Royal College shall pretend or profess to cure diseases by the deception called Homœopathy, or the practice called Mesmerism, or by any other form of quackery." "It is also hereby ordained that no Fellow or Licentiate of the College shall consult with, meet, advise, direct or assist any person engaged in such deceptions or practices, or in any system or practice considered derogatory or dishonourable by physicians or surgeons."

"*Dublin*, 13*th June*, 1862.

"My dear Sir,—I was well aware of the detestable act of tyranny you refer to. I believe some persons were overawed into taking part in it against their own judgment. I have always protested against such conduct in all departments of life. You may see something to the purpose in my little penny tract on "Trades' Unions" (to be had at Parker's). In fact, the present is one of the Trades' Unions. A man has a right to refuse to work except for such wages, or under such conditions, as he himself chooses to prescribe, but he has no right to compel others to concur with him. If there is any mode of medical treatment which he disapproves of, or any system of education which he thinks objectionable, he will be likely to keep clear of it of his own accord, without any need of compulsion or pledges. Those again who may think differently ought not to be coerced or bullied. Some persons seem to have a notion that there is some connection between persecution and religion, but the truth is, it belongs to human nature. In all departments of life you may meet with narrow-minded bigotry, and uncharitable party spirit. Long before the outbreak of the Reformation the Nominalists and the Realists of the logical School persecuted each other unmercifully, so have Royalists and Republicans done in many countries; and in our own country the Trades' Unions persecute any one who does not submit to their regulations. In Ireland, if any one takes a farm in contravention of the rules of the agrarian conspirators, he is waylaid and murdered; and if he embraces the Protestant faith, his neighbours all conspire to have no dealings with him. The truth is, the majority of mankind have no real love of liberty, except that they are glad to have it themselves, and to keep it all to themselves; but they have neither spirit enough to stand up firmly for their own rights, nor sufficient sense of justice to respect the rights of others. They will submit to the domineering of a majority of their own party, and will join with them in domineering over others. In the midst of the disgust and shame which one must feel at such proceedings as you have alluded to, it is some consolation to the advocates of the systems denounced to see that there is something of a testimony borne to them by their adversaries, who *dare not* trust the cause to the decision of reason and experience, but resort to such expedients as might as easily be employed for a bad cause as a good one.

(*Signed*) "R. Dublin."

Siguatera, or Fish-Poison Disease.

In our last impression we described those fishes which, in warm climates, produce symptoms of poisoning when consumed as food. We named of these six varieties, viz., the perches, the gurnards, the flounders, the spares, the gobies, the sardines, and the globe fishes, including two forms—the *Diodon* and the *Tetrodon.*

Confining our attention exclusively to these poisonous fishes, we found that they are most common in the following localities—at all events, that they have been discovered in these localities more frequently than elsewhere: in the Caribbean Sea, off Brazil, New Caledonia, the Seychelles, the Chinese Sea, the Malabar coast, and other parts of India.

We proceed, on the present occasion, to describe the way in which the poisonous effects of these fishes are developed, so that those who are interested on the subject may recognise those signs which, in a tropical climate, when fish is forming an article of diet, would indicate that a poison derived from such food was doing its dangerous, it may be its fatal, work. Such information may serve three purposes. It may be useful to some merely as matter of general knowledge; to others, who are going to tropical climates, or have friends going thither, it may afford some practical hints and suggest new inquiries; while, should it attract the attention of any of the authorities of the Navy, it may be a means of inducing them to order a scientific inquiry into the whole subject.

The first remark which has to be made on the present question is this: that fishes, like reptiles, found in temperate regions, are not often venomous. Certainly some reptiles and some fishes in temperate climates have the power of producing deleterious effects, but such effects are rarely fatal. In tropical climates, on the other hand, a vast number, both of reptiles and fishes, are naturally venomous; and further, when they do produce poisonous effects, these are exceedingly dangerous in character.

Secondly, it should be remarked, that in poisonous fishes the digestive organs, the spawn and the liver, are invariably most dangerous; and that there are many fishes that may be eaten with the greatest safety when those parts are avoided. Another fact worthy of notice is the age of the fishes: some are dangerous when they have arrived at maturity. The *Lethrinus mambo*, for example, can be safely eaten when very young, but afterwards is exceedingly dangerous. Some naturalists attribute the poisonous qualities to the food found in the seas frequented by certain classes of these fishes. This is true under some circumstances, as in the case of the *Meletta venenosa*, which at certain seasons of the year feeds upon a green nomad which covers the sea in large quantities. Wherever this green nomad is seen the *Meletta* is poisonous, but wherever it has not appeared the same fishes are eaten with the greatest safety. MM. Fonssagrives and Méricourt agree with M. de Rochas in his opinion respecting the spawn, and with him consider it as the most poisonous part. If such be the case it could soon be determined by ascertaining whether the injurious properties of the fishes are permanent, whether in the same species adults only are poisonous in their effects, and whether there is poison in those fishes only which contain spawn. To decide these questions, comparative experiments might be made with the male and female fishes of the same species inhabiting the same streams or waters. If it were found that the latter only were injurious the difficulty would be satisfactorily solved.

The Spanish colonists gave the name of *Siguatera* to that union of symptoms which results from the eating of poisonous fishes indigenous to hot countries. The symptoms which arise are of two kinds. Severe attacks of indigestion or gastro-enteritic poisoning; or an icy coldness and depression, accompanied with great nervous disturbance. The symptoms are the same, whether severe enough to cause death, or only to excite inconvenience or temporary derangement; they differ only in intensity. Gastro-enteritic *Siguatera* has all the appearance of a severe attack of indigestion, viz., nausea, vomiting—first of the food, then of mucus—coldness, depression of the pulse, cramp, and diarrhœa. The nervous types of symptoms, viz., convulsion and paralysis, which characterise the process of poisoning by fishes, are not to be found in any case of metallic poisoning. They seem to arise from a combination of accidents, as if they had been produced by different vegetable poisons of narcotic and acrid character. When the *Siguatera* assumes a gastro-enteritic form, the sufferer is, in general, quickly restored to health, while the nervous symptoms leave behind them the most serious traces of debility and irregularity. These have been known to continue for eight or nine days.

There is, usually, no difficulty in distinguishing the *Siguatera* of hot countries, the symptoms being well defined. The only difficulty that could arise would be in the similitude of the *minor* symptoms of the gastro-enteritic form and those arising from poisoning by copper or arsenic, and in the analogies of the nervous or convulsive form with the effects of vegetable poisons.

As illustrating the way in which the members of crews of vessels are poisoned by the eating of poisonous fishes the following facts from the *Linnæan Transactions* for November, 1860, are valuable. The history of the circumstances was communicated by Mr. H. Jameson, of Her Majesty's ship "Winchester," to Sir William Burnett. The accident occurred on board the Dutch ship "Postillion," lying in Simon's Bay, Cape of Good Hope. The "Winchester" being near, Mr. Jameson was called to render his services to the sufferers. On arrival he found that the boatswain's mate and purser's steward had been suddenly taken ill after eating a part of a well-known deleterious fish, common in Simon's Bay, and called the toad or bladder-fish—the *Diodon*. They had been warned that the fish was poisonous, but were resolved to try the experiment, the boatswain declaring that the liver was not poisonous, but a great delicacy. They had partaken of dinner at twelve o'clock, immediately afterwards they partook of the fish, and scarcely ten minutes had elapsed when the boatswain became so ill that he was unable to raise himself without the greatest difficulty; his face was somewhat flushed; his eyes glistened, the pupils were rather contracted; his mouth was open; the lips were tumid and somewhat blue, the forehead covered with perspiration, the pulse weak, quick, and intermittent. The patient was extremely uneasy and in great distress, but still conscious; he complained of pain from constriction of the throat, and appeared inclined to vomit. It was with difficulty he could swallow a powder with some warm water. His state quickly assumed a paralytic form; his eyes became fixed in one direction; his breathing was difficult and accompanied with a dilatation of the nostrils; his face was pale and covered with cold perspiration, his lips livid; his consciousness and pulse failed, and in scarcely seventeen minutes after partaking of the fish he was dead. The symptoms exhibited by the purser's steward were of a similar kind. He also died within twenty minutes of the time after he had partaken of the fish.

The quantity consumed between the two men was only the liver of one fish; the liver might have weighed about four drachms. The entire fish measured only from six to eight inches in length.

Other examples similar to the above have been recorded by Prœger; in all death was rapid, but we do not stop to chronicle these, as the effects were the same as in the instances above cited.

It is worthy of note that some of the poisonous fishes we have named are as hurtful to inferior animals as they are to man. Several illustrations of this fact have been collected. Dr. Collas, chief of the marine department of health at Pondicherry, had occasion to inquire into the poisonous nature of the goby, as he had been informed by the director of police there, that several accidents had occurred in a native mussulman's family of three persons, who had partaken of a dish made of some small fishes called in Talmic *Calououlouvé*. The head of the family also told Dr. Collas that three fowls had died soon after eating some of the same dish. A native doctor or "*mestris*" repeated this experiment of feeding fowls on the fish and with the same result.

At eight o'clock in the morning Dr. Collas gave to one chicken three heads, and to another four heads of these fishes; at half-past nine the symptoms began, at eleven o'clock they increased, between one and two the poisoned animals died, with convulsions, in a state of extreme prostration. In a second experiment, the bodies of these same fishes were used from which the heads had been taken off. The animals suffered from the same symptoms, but less severely, and were quite well the next morning.

The livers of ten gobies were administered to one chicken and killed it in two hours. The intestines of ten of these fishes, separated from the livers, produced the same results. The entire fishes, deprived of their livers and intestines, caused death in four hours and a half, in other experiments.

Three experiments made upon dogs, to which these fishes were given after being fried, caused them to be seriously ill, and deranged their digestion; they very soon recovered.

We have now adduced sufficient evidence to indicate the importance of further inquiry on the subject of poisonous fishes. Much remains as yet to be discovered. First, we require to have a more correct classification of poisonous fishes: secondly, we want more information as to the times when they are poisonous: thirdly, as to the nature of the poison: and fourthly, as to the treatment when the poison has taken effect. The discovery of these facts depends greatly for its success upon the medical officers employed in the various naval stations, and who have such ample means of observation. The study has not yet become one of the necessary attributes of a naval medical officer's education, and until it has, the only way of supplying the deficiency is to preserve all those fishes supposed to be poisonous, as they are to be found in any sea or fishing-ground in which they may be detained, either in spirit or glycerine. At the same time it is necessary carefully to note, in the fresh state, all those peculiarities which the preserving liquid might possibly destroy. Photography might be made to lend its aid, so that the forms of these poisonous fishes could be made familiar to every eye.—*Social Science Review*, July 19, 1862.

Angina Pectoris caused by Smoking.

We recorded in the first paper of our present number our impressions on the subject of Mr. Beau's paper relative to the influence of tobacco-smoke on the production of angina pectoris. The following are the facts on which the author grounds his opinion:—

1. A gentleman, aged about sixty, in the habit of smoking to excess, frequently suffered at night, for a month, from palpitation of the heart, oppression, and pain in the shoulders. He discontinued smoking, and the attacks entirely ceased, the digestive functions becoming at the same time more regular. After three months he resumed his old habits, and again experienced the same symptoms. At last he completely eschewed tobacco, and no further return of the attacks has since taken place.

2. A physician, aged fifty, who, although presenting the outward signs of health, was troubled with dyspepsia, and constant debility, indulged in the use of *cigarettes* whenever the opportunity offered. For some time he complained of palpitations, accompanied by oppression and a sense of tightness about the chest, recurring in paroxysms at various hours of the day or night. He gave up smoking, and the attacks ceased. One day he found himself in the same room with several smokers, and, although he did not yield to temptation, he inhaled the fumes of tobacco, and on the following night the former symptoms returned.

3. A physician, aged thirty-five, who practises in the country, incessantly smoked *cigarettes* in the intervals of his professional visits. For a long time his appetite had declined, and he consequently took very little food. One morning, while fasting, and smoking a *cigarette* on his way to one of his patients, he was suddenly ceased with precordial anxiety and tightness across the upper part of the chest. He was unable to speak or walk; his pulse became imperceptible, and his hands cold. These symptoms lasted half-an-hour. He came to Paris, and, by Mr. Beau's advice, relinquished the habit of smoking, promising to write if a paroxysm of the same nature as the first again reappeared. Mr. Beau has not heard from him since.

4. A young Spaniard, aged thirty, in the constant habit of smoking *cigarettes*, suffered much from dyspepsia and impaired digestion. One evening, while indulging in his customary relaxation, he suddenly experienced violent constriction of the chest, and for ten minutes his pulse was imperceptible. Alarmed at this occurrence, he greatly diminished his daily consumption of tobacco, and the symptoms of angina have not since returned.

5. A physician, who has been compelled to discontinue the prac-

tice of smoking on account of disturbance of the gastric functions, also experienced, when he was in the habit of using tobacco, nocturnal attacks of tightness of the throat, with palpitation and neuralgic pains in the neck. He now enjoys perfect freedom from these symptoms.

6. A merchant, who for fifteen or twenty years had suffered from dyspepsia consequent on immoderate smoking of *cigarettes*, suffers, chiefly at night, from paroxysms of precordial oppression, with palpitation and pain between the shoulders. The features are drawn, and the pulse small and irregular. This gentleman now smokes more than ever.

7. A healthy and vigorous old man, aged seventy-five, seeks consolation in smoking from mental distress. On a Saturday an attack of angina supervenes, of half-an-hour's duration; a second fit recurs next day, and he is found dead in his bed on the Monday morning.

8. A foreign diplomatic agent, an inveterate smoker, who, despite appearances, was of weak constitution, was seized one evening, on his return home, with angina pectoris, characterised by dyspnœa, smallness of the pulse, coldness of the extremities, and lividity of the integuments. He went to sleep at eleven o'clock, awoke next morning at his customary hour, and transacted business as usual. At five o'clock, while smoking a cigar in his arm-chair, he suddenly expired. A fatty condition of the heart was the only alteration detected at the post-mortem examination.—*Med. Circ.*, Aug. 27, 1862.

Petroleum.

Our contemporary, the *Monthly Homœopathic Review*, may be right in its assertion that the *Barbados tar* is the best *petroleum*, but the *petroleum* of Hahnemann was assuredly not *Barbados tar*, and therefore we hold that it is a mistake to attempt to substitute the one for the other. The *petroleum* of Hahnemann is the mineral oil, a very volatile, yellowish, limpid fluid, a drop of which on a piece of white paper rapidly evaporates, leaving no residue. The *Barbados* or *mineral tar*, on the other hand, is a thick, viscid substance, of a dark colour, containing a large portion of bitumen, and is improperly termed *petroleum*, without the qualifying adjective *nigrum*. Our contemporary is in error in stating that Hahnemann was unacquainted with the *mineral* or *Barbados tar*, for in his *Apotheker*

Lexicon, Hahnemann gives a full account of all the different mineral oils and tars, mentioning the localities where the different sorts are obtained, and detailing the processes for ascertaining their purity.

International Exhibition.

We are pleased to observe that a prize medal has been awarded to our energetic and zealous colleague, Dr. Roth, "for models and efforts in behalf of physical education." We congratulate Dr. Roth on this gratifying public recognition of his services to the cause of physical education, and we are sure that the honour awarded him will be but an incentive to him to pursue still further the subject to which he is so earnestly devoted, and for which he has already effected so much.

Love's Labour Lost.

In some recent numbers of the *Monthly Homœopathic Review*, Mr. Wilson has been directing attention to the imperfections of Hempel's translation of Hahnemann's *Chronic Diseases*. It appears that Hempel has omitted a good many of the symptoms that occur in Hahnemann, which was very wrong of him, for as a faithful translator he was bound to give a literal rendering of the original. Mr. Wilson therefore deserves the thanks of Hempel's readers for pointing out the untrustworthiness of the translation. Mr. Wilson takes Sarsaparilla as a specimen of Hempel's faulty rendering, 231 of the original symptoms having been omitted by Hempel. These omitted symptoms Mr. Wilson supplies, and suggests that those who have Hempel's translation should restore them to their proper place in the work, so that they may be able to study the entire sphere of action of sarsaparilla. To this proposal we altogether demur. On examining these 231 omitted symptoms of sarsaparilla, we find that no less than 205 of them are symptoms contributed by the anonymous prover, indicated by the letters "Ng." Now those who have devoted most attention to a critical examination of Hahnemann's *Materia Medica*, assure us that the symptoms furnished by "Ng." are altogether untrustworthy. That this verdict is true our own less profound examination and comparison have satisfied us, and we are the more disposed to this unfavourable opinion from the slighting manner in which Hahnemann himself speaks of "Ng.," while making use of his provings. Thus in a note to *Alumina* (*Chr. Kr.* II. 35) Hahnemann says: "Drs. Hartlaub and Trinks indicate by these two letters only (which is actually leaving anonymous) a man who furnished the greater number of the symptoms of medicinal provings for their *Annals*, which are often recorded in very careless, prolix and ambiguous expressions. I was only able to extract what seemed useful from them, and that only on the understanding that he conducted his observations like an honest discreet man," &c., &c. Again in a note to *Magnesia carbonica* (*Chr. Kr.* IV, 134) Hahnemann gives another hit at this prover. "The symptoms," he says, "to which the letters 'Htb. and Tr.' are attached are from the Pure Materia Medica of Drs. Hartlaub and Trinks; the name of the original prover is not given; but they bear the stamp of having their origin in the ever-ready symptom-manufactory of 'Ng.'" From these expressions it is evident Hahnemann had but a poor opinion of this most fertile prover. A glance at the provings of the *Chronic Diseases* will show us how largely they are indebted to this industrious unknown, for we find that out of the forty-seven medicines contained in that work, no less than twenty were proved by this anonymous hero. Surely such a martyr to science, who, if we are to believe him, must have suffered the torments of the damned in proving these twenty medicines—for in almost every case he is the largest contributor of symptoms to the medicines he professed to prove—surely his name should have been revealed in order that the homœopathic world might have done him honour. Can it be that he has declined to reveal himself because he was conscious of being what our transatlantic friends would call a "bogus" prover? However this may be, we cannot help feeling very distrustful about his recorded symptoms, and we only wish that they were every one eliminated from our Materia Medica, for we are convinced that they do not add to its utility, and we are very much inclined to think that the assumed initials "Ng" should be read "No go." Hempel has in a rough and imperfect manner attempted to winnow some of this chaff out of our Materia Medica; we are only sorry he has not performed his task more thoroughly. We cannot therefore see the use of restoring all this rubbish. We think it would be more worth Mr. Wilson's time and trouble if he were to institute a critical examination of the medicines in the *Chronic Diseases*, as Drs. Roth and Frank have done with some of them, and perhaps he might find that "Ng." is not the only prover whose symptoms might with advantage be omitted, but that Langhammer, who rivals "Ng." in the number of provings he professed to make, is not a bit more to be depended on. While Mr. Wilson is about his task of correcting Hempel's translation, we would advise him that *oberschenkel* and *unterschenkel* mean *thigh* and *leg*, and not *upper thigh* and *lower thigh* as he translates them.

The Missing Link.

The announcement made to the geologists of Germany, about three months ago, by Hermann Von Meyer, that he had obtained from the lithographic slate of Solenhofen, in Bavaria, a fossil impression of a feather on the upper and under surfaces of a split slab, and that this feather was undistinguishable in its appearance from that of existing birds, attracted but little attention beyond palæontological circles. We had already evidences of birds from the greensand; and the discovery of birds in the Solenhofen oolite would merely lead us to connect the osseous remains still more closely with the evidences of avian footprints discovered by Hitchcock in the Triassic sandstones. Von Meyer's feather, which he termed *Archœopteryx*, is, however, completely eclipsed in interest by the intelligence made public by the Rev. A. Wagner, of Munich, that in the collection of M. Häberlein, of Pappenheim, exists the skeleton of an animal undoubtedly of reptilian organisation, as indicated by the vertebral column and the form of the pelvis, and offering most analogy to the genus *Ramphorhynchus* or long-tailed *Pterodactylus*. It approaches the class birds by its trifid metatarsals, and by having developed, from a flat bone near the *ulna* and *radius*, and supposed to be a carpal, a radiate fan of feathers, similar to those of birds. At the apical extremity of the tail is another radiant fan, also of feathers. The rest of the animal appears to have been destitute of plumage. Unfortunately the head is wanting. This anomalous form is referred by Wagner to the order *Pterosauria*, and has been generically distinguished by the term *Griphosaurus*, from γριφος, *an enigma*.

Human Remains of Remote Antiquity.

At the meeting of the Ethnological Society, held on the 1st inst., Mr. Mackie described the human remains found at Markham, in the Valley of the Trent. The skull possesses very peculiar characteristics, and belongs to an extinct and pre-historic race of men. Its most remarkable feature is the unusual direction of the foramen magnum. The direction of this plane, indicating an approach, though in a very moderate degree, to the head of the gorilla and the chimpanzee, leads to the inference that the individual to whom it belonged was possibly not completely erect in his carriage. The other human bones discovered, including those found at the Heathery Burn Cave, belonging to the same pre-historic race of men.

OBITUARY.

America, France, England and Germany have each to deplore the recent loss of a distinguished follower of Hahnemann. Joslin, Tessier, Horner and Haubold have been removed from their several spheres of usefulness. All four have exercised, in different ways, no small amount of influence on the destinies and progress of Homœopathy.

Joslin.

Dr. Benjamin F. Joslin was born in the year that homœopathy was first promulgated, 1796. His tastes early inclined him to scientific pursuits, and before he became a homœopathist he occupied a prominent position in the medical world of New York, where he filled the chair of Mathematics and Natural Philosophy in the University from 1838 to 1844. At first deeply prejudiced against homœopathy, he yet thought it right to investigate the system before pronouncing against it. His investigations, carried on with the honesty and love of truth that was natural to him, resulted in his conversion to the doctrines of Hahnemann. From 1842 his practice became homœopathic, and all conversant with homœopathic literature know how much it is indebted to his labours. Nor was he a mere writer. He enriched the Materia Medica by some provings which are highly valuable. We refer to those of *rhus radicans* and *rumex crispus*. After a long life of usefulness he died, after a week's illness, on the 31st of December, 1861. The cause of his death was rupture of the aorta which was extensively ossified.

TESSIER.

The influence that Jean-Paul Tessier exercised over homœopathy in France is scarcely calculable as yet. He was one of the most distinguished Frenchmen who have adopted the practice of Hahnemann. One of that élite class from whom hospital physicians and surgeons are selected by concours, he had already attained the post of physician to the Hôpital Ste. Marguerite, a kind of offshoot or chapel-of-ease to the Hotel-Dieu, when his investigations led him to adopt the homœopathic practice. In the course of time he was transferred, not without violent opposition from his allopathic colleagues to the Beaujon, and latterly to the Enfants Malades. A vacancy occurring at the Hotel Dieu, he ought to have succeeded to the post, but a miserable and underhand intrigue taking advantage of his absence from Paris at the sick-bed of his father, succeeded in superseding him and placing a junior over his head, in the post that was his right and his ambition. There is little doubt that the annoyance caused by this injustice acted unfavourably on his health, which was at the time not very good, and though he bore up against it with manly courage, and continued to practise almost to the last day of his life, still he did not long survive the disappointment. He died, surrounded by his friends and pupils, on the 16th of May last, in the 52nd year of his age. Tessier's principal writings are well known. His work on *Pneumonia and Cholera* is in the hands of most homœopathists, and is a very remarkable production, distinguished by patient observation and logical reasoning. He was the founder and chief contributor to the *Art Médical*, a journal second to none in the medical world for learning, wit and sound practical remarks. An ardent Catholic, Tessier's aim was to oppose what he termed the materialism of the dominant Parisian school, and in the words of one of his disciples, "He laboured to reconcile medicine with the teachings of the Christian religion," (meaning of course the Catholic Church). A short extract from one of his papers will give some notion of the task he proposed to himself and the principles he professed: "As Catholics, we cannot and will not accept any philosophy that is not in conformity with our faith. It would be too inconsequential to have on the subject of capital questions like those concerning the nature of man and the origin of diseases, two contradictory solutions, one in our character of Christians, the other in our character of physicians . . . . . . In metaphysical philosophy, the rationalists have as their avowed chiefs Bacon and Descartes; we have no other law than that of the truth as defined and sanctioned by the Church: her science is our science, her philosophy is our philosophy. Consequently it is from her doctrines that we draw our principles; but it is not sufficient to content ourselves with such a general idea; in Christian philosophy we must choose a master . . . . . The choice is determined for us by the Catholic savants, who almost unanimously regard St. Thomas as the master of science . . . . . St. Thomas the disciple of Albertus Magnus, was his rival in natural science, and surpassed him in metaphysical and theological science."

We are unable to say if Tessier and his followers have succeeded in their endeavour to catholicise medicine, nor can we tell how far the discoveries of Hahnemann are conformable to the teachings of the angelic doctor. But our opinion—if that is of any value—has always been that the more religion and science are kept asunder, each on its own line of rails, the less chance will there be of a disastrous collision of the two. The prejudices of theological zeal brought to bear upon scientific facts and theories, have a decided tendency to distort these facts and theories. Science has hitherto flourished best when working out its development independently. Its progress has always been greatest when untrammelled by tradition and authority, and we fear that its growth would only be stunted by the attempt to bring it into subjection to a theological system based on tradition and upheld by authority. Opposed as we are to the attempt of Tessier to subject medicine to the teachings of the Catholic Church, we still cannot help regarding Tessier's premature decease as a great loss to our cause, for independently of his theological views Tessier laboured earnestly and successfully to advance our system of therapeutics on the practical as well as on the theoretical side, and his position as physician to a Parisian hospital gave homœopathy a status in Paris it would not otherwise have enjoyed.

HORNER.

Without being a man of genius, Dr. Horner, by his conversion to homœopathy, created a greater sensation amongst the public than almost any other medical man in England has done by his adoption of Hahnemann's doctrines. In Hull, the town where he practised, he long occupied a conspicuous position, both as a medical and a public man, having been at one time a member of the Town Council. He was President of the British Medical Association the year before that illustrious body distinguished itself by passing its anti-homœopathic resolutions at Brighton. When, therefore, he avowed his conversion to the homœopathic faith, he excited a great deal of attention among the general public, and the pamphlet he wrote detailing his *Reasons for Adopting the Rational System of Medicine* went rapidly through a large number of editions; and as it was well written and contained a number of very striking cases, it served to arouse a great spirit of enquiry among the patient part of the community, and caused many converts. His death took place at Hull on the 6th of June last. His age was fifty-nine.

HAUBOLD.

Dr. Carl Haubold was like Dr. Joslin born in 1796. He was one of Hahnemann's earliest and most zealous disciples, and possessed more influence over the master than almost any of his followers. In Leipzic he enjoyed a large practice, and he is said to have been a most successful practitioner. Though he wrote little, he was held in high esteem by all his colleagues in Leipzic. Though a thorough master of the Materia Medica, and a most skilful physician in every respect, he was never dogmatical nor overbearing towards his junior brethren, and he always gave his opinion with a modesty and deference for the opinion of others, that won for him the affection of all, and made him a great favourite at consultations. He died at Ems, whither he had gone to try the effect of the waters on a disease of the throat, on the 8th of June last.

BOOKS RECEIVED.

L'Art Médical.

Bulletin de la Société Médicale Homœopathique de France.

The Monthly Homœopathic Review.

The Homœopathic Observer.

The North American Journal of Homœopathy.

El Criterio Medico.

Address on the Life and Character of the late Benjamin F. Joslin, M.D. By B. F. BOWERS. New York: Smith, 1862.

The Medical Record of Australia. Vol. II., No. 7.

Notes on Spa. By THOS. CUTLER, M.D. Brussels, 1862.

Transactions of the Illinois Homœopathic Medical Association. New York, 1862.

INDEX TO VOL. XX.

Aconite, Mr. Nankivell on, 62, 353; —, in diseases of the scalp, 62; —, in diseases of the eye, 63; —, in lippitudo, 66; —, in jaundice of conjunctiva, 68; —, in tetanus, 136; —, poisoning by, 140; —, antidoted by *nux vomica*, 349; —, in diseases of ear, 353; —, in diseases of nose, 356; —, in diseases of face, 359; —, in diseases of teeth, 364; —, in diseases of mouth, 366; —, Dr. Routh on, 510
Albert, Prince, his treatment, 174
Albuminuria, *arsenic* in, 344, 641
Alcohol as a food, 541
Allopathy, six months of British, 635
Almost persuaded to be a homœopathist, 510
Alternation of medicines, Mr. Gelston on, 392
Anæmia, dietetic treatment of, 637
Aneurism, popliteal, cured by flexion, 316
Angina pectoris caused by smoking, 685
Aniline in chorea, 638
Animation, suspended, report on, 662
Aphthæ, *chlorate of potass* in, 640
Arsenic, drinking, 139; —, poisoning by, 139; —, inhalation of, in bronchitis, 174; —, in albuminuria, 344, 641; —, in epilepsy, 639; —, symptoms of poisoning by, 207
Arsenical paper-hangings, Dr. Dudgeon on the effects of, 200
Asarum for drunkards, 138
Asthma, flatulent, Dr. Hirschel on, 502
Atkin, Dr., death of, 175
Atropin, physiological action of, 346
Austrian Homœopathic Journal, 490
Barbados, exemption from fever of, 631; —, tar, 687
Bayes, Dr., on *hydrastis* in cancer, 1; —, on medical terrorism, 420
Belladonna, Dr. Hughes on poisoning by, 70; —, cases of poisoning by, 71, 77, 79, 81, 84, 85, 86; —, and *opium*, Dr. Hughes on rationale of action of, 132; —, in bronchial neuralgia, 137; —, summary of physiological action of, 194; —, as a uterine remedy, Dr. Liedbeck on, 483
Bigots, rebuke to the, 343
Bladder, the inclined plane in pain of the, 641
Bloodshed advocated by an American physician, 134
Bodington on the neutralization of *opium* by alcohol, 131
Bradshaw, Mr., on *hydrastis* in cancer, 2
Braithwaite's Retrospect, 635
British allopathy, six months of, 635
Brodie, Sir B., answers to, 87
Bronchitis, inhalation of *arsenic* in, 174
Budd, Dr., on typhoid, 635
Bushnan, Dr., on the narrow limits of rational medicine, 126

Cancer, Dr. Bayes on *hydrastis* in, 1; —, of breast, cases of, 4, 5, 6, 7, 8, 9; —, of neck, 6; —, of foot, 7; —, of womb, 9; —, of thigh, 11; —, tabular view of cases of, treated by *hydrastis*, 12; —, *arsenic* in, 637
Capillary vessels, their behaviour in the process of cure, Hoppe on, 369
Cardiac dropsy, *elaterium* in, 639
Cellulitis, pelvic, Dr. McLimont on, 288

Cerium, oxalate of, in sickness of pregnancy, 642
Chambers, Dr., on the excreta of snakes in phthisis, 509; —, on continued fever, 636; —, on anæmia, 637
Chelidonium in neuralgia, Dr. Firmat on, 47; —, Rademacher on, 153
Chlorate of potass in aphthæ and diphtheria, 640
Chloroform, Dr. Simpson's new mode of administering, 642
Chorea, gymnastics in, 136; —, *aniline* in, 638
Cod-liver oil, Dr. Williams on, 505
Compressed air bath, 517
Comte's Positive Philosophy, 583
Consultations with allopaths, Dr. Bayes on, 421; —, British Medical Journal on, 422, 427
Contagiousness of phthisis, Dr. Rogerson on, 338
Continued fever, *muriatic acid* in, 637; —, complications of, 637
Cow-pox and grease identical, 135
Croton oil, exanthematogenic effects of, 138
Curie, Dr., on the tubercle-causing effects of *drosera*, 39
Czermak's laryngoscope, 503

Darwin on the origin of species, 325
Deformity of the chest, Dr. Liedbeck on, 617
Diabetes, Dr. Hale on *uranium* in, 166; —, caused by *phosphoric acid*, 641
Diarrhœa, *nitric acid* and *opium* in, 351; —, *sulphuric acid* in, 640
Dietetics, physiological, Dr. Ludlam on, 529
Digitalis, in delirium tremens, 139; —, effects of, 172
Diphtheria, *perchloride of iron* in, 136; —, *chlorate of potass* in, 640
Doctors differ, 133
Drosera, Dr. Curie on, 39; —, Vicat on, 40; —, Kirschleger on, 40; Dodoens on, 41; —, physiological experiments with, 42; —, production of tubercles by, 43
Drummond, Mr., on homœopathy in Manchester, 202
Drunkards, cure for, 138
Drury's, Dr., reply to Sir B. Brodie, 89
Dublin, Archbishop of, on medical trades' unions, 680
Dudgeon, Dr., on the effects of arsenical paper hangings, 200

Elaterium in cardiac dropsy, 639
Epilepsy, *bromide* and *iodide of potassium* in, 639; —, *arsenic* in, 639
Exasperating a disease, 313
External remedies, Dr. Liedbeck on, 616

Ferrier on metaphysics, 548
Fichte, philosophical confession of, 558; —, nerve physiology of, 564
Firmat on *chelidonium*, 47
Fish-poison disease, 681
Flexion, cure of aneurism by, 316
Food and medicine, distinction between, Dr. Ludlam on, 529
Foster the spirit-raiser, 334
Foundation of a new theory and practice of medicine, Dr. Inman on, 107
Foundling hospitals, need of, 657; —, not productive of immorality, 659; —, the London, inutility of, 659
Fucus vesiculosus in obesity, 515

Gallavardin, Dr., on phosphoric paralysis, 460
Gelston, Mr., on alternation of medicines, 392
Gerson, Dr., on prosopalgia, 401
Goding, Dr., on the law of similars, 622
Goitre, *biniodide of mercury* in, 642
Gold, Dr. Sharp's reconstruction of, 94
Gonorrhœa, homœopathic treatment of, 645
Grease and cow-pox, identity of, 135
Gull, Dr., on typhus, 636
Gymnastics in chorea, 136

Hæmorrhoids, barbarous treatment of, 641

Hæmostatic, a new, 511

Hale, Dr., on *uranium* in diabetes, 166

Hall, Dr. Marshall, ready method of restoring animation, 666

Hall-water in ovarian disease, 591; —, analysis of, 605

Hellebore, effects of, 172

Haubold, Dr., death of, 694

Hempel's mistranslations, 688

Hirsch, Dr., cure of ovarian cyst by, 588

Hirschel, Dr, on flatulent asthma, 502

Homœopathic Congress described by an allopath, 171

Homœpathic Observer, the, 513

Homœopathy, in Spain, 172; —, in Manchester, Roberts, Rayner and Drummond on, 302; —, by Professor Hoppe, 606; —, Dr. Ryan on, 669

Hoppe, Professor, on the behaviour of the capillary vessels in the process of cure, 369; —, on homœopathy, 606

Horner, Dr., death of, 693

Hughes, Dr., on poisoning by *belladonna*, 70, 177; —, rationale of action of *opium* and *belladonna*, 132; —, on *hydrocyanic acid*, 441; —, and the Medical Council, 511

Human remains, ancient, 691

Hydrastis in cancer, Dr. Bayes on, 1; —, in gonorrhœa, 649

Hydrocyanic acid, Drs. Madden and Hughes on, 441; —, history of, 442; —, physical and chemical characters of, 442; —, sources, compounds of, 443; —, physiological action of, 443; —, physiological summary and therapeutic inferences, 456; —, neurotic action of, 456; —, hæmatic action of, 459; —, allied remedies, 459; —, pharmaceutical preparations of, 459; —, dose of, 459

Hypermetropia, Dr. Wells on, 140

Illegitimate births in different countries, 659

Infanticide, Dr. Ryan on, 651

Infinitesimal doses and their analysis by light, by Dr. Ozanam, 267

Inman, Dr., foundation for a new theory and practice of medicine by, 107

International Exhibition, 688

Iodide of potassium, Ricord on, 135

Iodine in vesical catarrh, 139; —, in gastralgia, 515; —, mineral water of Hall, 593

Johnson, Dr., on continued fever, 637

Joslin, Dr., death of, 691

Kant's philosophy, 553

Kidd, Dr., on fibrous tumours of the uterus, 52

King and Queen's College of Physicians, stultifying conduct of, 158; —, medical council on, 511

Kleinert on Laryngeal Catarrhs, 243.

Kreuznach-water in fibrous tumours of the uterus, 57

Laryngeal catarrhs, Kleinert on, 243; —, plessimetry in, 247; —, auscultation in, 248; —, causes of, 248; —, liability of singers to, 248; —, cases of, 251, 254, 256, 259, 262 264, 265

Laryngoscope, Czermak's, 503

Lathyrus sativus, pathogenetic effects of, 136

Laycock, Dr., on the mind and brain, 571; —, on medical psychology, 573

Law of similars, Dr. Goding on, 622

Lead, poisoning by, 507

Lee on homœopathy, 161

Letter of the law, 314

Lewes on innate ideas, 555

Liedbeck, Dr., on *belladonna* as a uterine remedy, 483; —, on external remedies, &c., 615

Link, the missing, 690

Liver, action of *phosphorus* on, 506

Locke on innate ideas, 551

Love's labour lost, 688

Loves of the allopaths, 509

Ludlam, Dr., physiological dietetics by, 529
Lying-in hospitals, need of, 657

McClellan's typhoid fever, 313
McGilchrist, Dr., on psychological physiology, 547
McLimont, Dr., on pelvic cellulitis, 288
Madden, Dr., on *hydrocyanic acid*, 441
Making believe to give physic, 131
Manchester, homœopathy in, 202
Marston, Dr., reply to Sir B. Brodie by, 91
Materia medica, Dr. Sharp's proposed reconstruction of the, 94
Medical terrorism, Dr. Bayes on, 420
Medical trades' unions, Archbishop Whately on, 680
Medicated milk, 137
Mercurial disease, Keller on, 135
Metaphysics, inutility of, 547; —, opposed to science, 548
Mill on intuitions, 556
Mineral waters, defence of the use of, 595
Missing link, the, 690
Moore's practical reply to Sir B. Brodie, 90
Morell, on psychology, 559; —, primordial instincts of, 563
Muscular poisons, Claude Bernard on, 133

Nankivell, Mr., on *aconite*, 62, 353
Neuralgia, *chelidonium* in, 48; —, *valerianate of ammonia* in, 639
New year, a good, 318
Nutrients, direct, 532; —, indirect, 535
Nux vomica antidotal to *aconite*, 349

Obesity, *fucus vesiculosus* in 515
Obituary: Atkin, 175; —, Joslin, 691; —, Tessier, 692; —, Horner, 693; —, Haubold, 694
Opium, neutralized by *alcohol*, 131; —, *belladonna*, Dr. Hughes on, 132; —, in acute mania, 138
Orchitis, homœopathic treatment of, 647
Origin of organized beings, 323
Ovarian cyst, cure of, 588
Ozanam, Dr., on spectral analysis, 267

Paralysis, cured by *phosphorus*, 461; —, caused by *phosphorus*, 464
Pathological anatomy, Claude Bernard's appreciation of, 132
Pattison on *hydrastis* in cancer, 3
Peters and Snelling's science and art of medicine, 116
Petroleum, 687
Phosphoric acid, paralytic symptoms caused by, 471; —, convulsive symptoms caused by, 472; —, diabetes caused by, 641
Phosphoric paralysis, Dr. Gallavardin on, 460
Phosphorus, effects of, 139; —, paralytic symptoms caused by, 466; —, convulsive symptoms caused by, 468; —, elective action on nerves of sensation of, 481; —, action on liver of, 506
Phthisis, Mr. Pope on the therapeutics of, 13; —, curability of, 13; —, Andral on, 14; —, Epps on, 14; —, Wyld on, 15; —, symptoms of first stage of, 16; —, Cotton on, 16; —, nature of, 18; —, Turnbull on, 19; —, treatment of, 20; —, hygienic treatment of, 20; —, McLimont on proper climate for, 22; —, dress in, 24; —, diet in, 24; —, medicines in, 26; —, Bennett's treatment of, 26; —, Turnbull's treatment of, 26; —, Hogg's treatment of, 27; —, Cotton's treatment of, 27; —, Churchill's *hypophosphites* in, 28; —, *cod liver oil* in, 31; —, homœopathic treatment of, 34; —, Quain on the *hypophosphites* in, 137; —, Cotton on *steel* in, 164; —, Cotton on *chlorate of potass* in, 500; —, Chambers on the excreta of snakes in, 509; —, Rogerson on the contagiousness of, 338

Physiological Dietetics, Dr. Ludlam on, 529
Pneumonia, Lawson on blood-letting in, 134; —, Gairdner's accurate statistics of, 137; —, comparative quickness of cure under different dilutions, 490; —, medicines that produce, 639
Pope, Mr, on the therapeutics of Phthisis, 13
Propylamine in rheumatism, 138
Prosopalgia, Dr. Gerson on, 401; —, *arsenic* in, 405; —, *belladonna* in, 405; —, *bryonia* in, 407; —, *calcarea* in, 407; —, *china* in, 408; —, *cocculus* in, 413; —, *colocynth* in, 415; —, *ignatia* in 415; —, *platina* in, 420
Psychological physiology, Dr. McGilchrist on, 547

Quackery defined by the Medical Times, 321
Quinine, inefficacy of, in some agues, 630; —, dangerous effects of, 633

Rational medicine, Bushnan on the narrow limits of, 126
Rayner, Mr., on homœopathy in Manchester, 302
Remote antiquity, human remains of, 691
Rennet wine, 674
Rentsch, Dr., on mutability of species, 328
Rheumatism, *propylamine* in, 138
Roberts, Dr., on homœopathy in Manchester, 302
Rogerson, Mr., on the contagiousness of phthisis, 338
Roth, Dr., prize medal awarded to, 688
Roth, symptoms of arsenical poisoning, 207
Rückert's homœopathic clinical experience, 491
Ryan on infanticide, 651; —, on homœopathy, 660

Santonine, Martini on the action of, 133
Sarracenia in small-pox, 637
Sarsaparilla, Sigmund on, 135
Science and art of medicine, Peters and Snelling on, 116
Sharp, Dr., letter to Sir B. Brodie from, 91
Shoes, a few words about, 309
Siguatera, 681
Silvester's ready method of restoring animation, 666
Similia similibus curantur or curentur, 314
Simplicity in therapeutics, Dr. Williams on, 513
Singing-masters, sins of, 250
Small-pox, *sarracenia* in, 637
Smith, Mr., answer to Sir B. Brodie by, 90
Smoking, angina pectoris caused by, 685
Snake-bites, effects of, 352
Snelling and Peters' science and art of medicine, 116
Spain, homœopathy in, 172
Spectral analysis, 150; —, Dr. Ozanam on, 267
Spiral, law of the, in relation to origin of organized beings, 329
Spirit-raising, modern, 334
Story, two ways of telling a, 513
Stricture, treatment of, 648
Strychnine and *woorara* compared, 133; —, *tannin*, the antidote of, 139; —, poisoning by, 173
Sulphuric acid in diarrhœa, 640
Suspended animation, report on, 662
Sydenham Society's yearbook of medicine, 131
Syphilis, Kreyser on vaccination in, 136; —, Hahnemann's treatment of, 649
Syphilitic blood, inoculation of 498
Syphilization, Lindwurm on, 135; —, facts and fancies regarding, 527

Tanghinia, effects of, 172
Tapeworms, development of, 138

[illegible]
[illegible]
[illegible]
[illegible]
[illegible]
[illegible]
[illegible]
Typhoid, cause of, [illegible]
Typhus, natural history of, [illegible]

Upas, effects of, [illegible]
Uræmia in diabetes, Dr. Hale on, [illegible]
Uterine ulceration, [illegible]
Uterus, Dr. Kidd on fibrous tumours of, [illegible]; — cases of fibrous tumours of, [illegible]; — [illegible] treatment of [illegible] of, 442

Vaccination, in syphilis, Kreyser on, 124; — protective power of, 1[illegible]

[illegible]
[illegible]
[illegible]
[illegible]
[illegible]

Whitley, Archbishop, on medical [illegible], [illegible]
Williams, Dr., on [illegible]; —, on simplicity in homœopathy, [illegible]
Wilson on Hempel's [illegible], [illegible]
Wisdom in high places, [illegible]
Wounds and styptic compound, [illegible]

Yeldham, Mr., on venereal diseases, 644
Yellow-fever, Dr. Crockery on, [illegible]

END OF VOL. XX.

Printed by W. Davy & Son, 8, Gilbert-street, Oxford-street, W.

UNIVERSITY OF MICHIGAN
3 9015 04842 7788